



**STATE BANK OF INDIA**  
**PREMISES & ESTATE DEPARTMENT, LOCAL**  
**HEAD OFFICE, 3<sup>RD</sup> FLOOR, SYNERGY, C-6, G-**  
**BLOCK, BANDRA KURLA COMPLEX,**  
**BANDRA (E), MUMBAI.**

**TENDER ID: MUM202506007**

**PART – B: PRICE BID**

**INVITES E-TENDERS FOR**  
**PROPOSED INTERIOR WORKS AT 1<sup>ST</sup> TO 4<sup>TH</sup> FLOORS OF LHO, MUMBAI METRO**  
**BUILDING LOCATED AT BANDRA KURLA COMPLEX, MUMBAI 400051**

**TENDER SUBMITTED BY:**

NAME : \_\_\_\_\_  
ADDRESS : \_\_\_\_\_  
\_\_\_\_\_  
DATE : \_\_\_\_\_  
EMAIL: : \_\_\_\_\_

**ARCHITECT:**

**M/S WORKSPHERE VENTURES (INDIA) PVT LTD,**  
**407 - 414, Exim Link, Mulund Goregaon Link Road,**  
**Nahur West, Mumbai 400078**  
**Contact Number: 9321899033**  
**E-mail: [swapnil@workspHEREarchitects.com](mailto:swapnil@workspHEREarchitects.com)**

**CLIENT:**

**THE DEPUTY GENERAL MANAGER (OPS)**  
**State Bank of India, Global Markets,**  
**14<sup>th</sup> Floor, Corporate Centre, Nariman Point, Mumbai-400021.**  
**Tel: 022 2274 2296**  
**E-mail: [operations.gmu@sbi.co.in](mailto:operations.gmu@sbi.co.in)**



**TENDER FOR: PROPOSED INTERIOR WORKS AT 1<sup>ST</sup> TO 4<sup>TH</sup> FLOORS OF LHO,  
MUMBAI METRO BUILDING LOCATED AT BANDRA KURLA COMPLEX, MUMBAI  
400051**

TO,  
THE DEPUTY GENERAL MANAGER (OPS)  
State Bank of India, Global Markets,  
14<sup>th</sup> Floor, Corporate Centre, Nariman Point,  
Mumbai-400021.

This is to confirm that I have studied the drawings, tender specifications, BOQ and description of items in detail. I have verified the estimates, made myself conversant with the site and working conditions and I have got cleared off my doubts before quoting for the tender and after full Knowledge & consideration, I, quote my bid as below:

Name of the Work : Proposed interior works at 1<sup>st</sup> to 4<sup>th</sup> Floors of LHO Mumbai metro building located at Bandra Kurla Complex, Mumbai 400051.

Estimated Cost : Rs. 359,857,147.00 (In Words: Thirty Five Crores Ninety Eight Lakhs, Fifty Seven Thousand, One Hundred and Forty Seven only).

I am ready to execute the above prescribed work with:

i) At par with the estimated rates (i.e. Nothing above & / or below)

ii) \_\_\_\_\_ %a above (In words \_\_\_\_\_)  
\_\_\_\_\_ ) Percentage above the estimated cost.

iii) \_\_\_\_\_ % below (In words \_\_\_\_\_)  
\_\_\_\_\_ ) Percentage below the estimated cost.

**Notes:**

1. If there is discrepancy in figures and in words, the rate quoted in words will be considered.
2. The agency shall be required to execute the job in accordance with the BOQ, BOQ specifications, Technical specifications, clauses as per the Technical bid & instructions on site.
3. The cost mentioned against the Annual Maintenance Contract (AMC) of HVAC/UPS are indicative only which will be paid separately after completion of Defect Liability Period (DLP) upon percentage above or below as quoted by the L1 vendor on the total estimated project cost.

**Signature of Contractor with**

**SealDate :**

**Name :** \_\_\_\_\_

**Address :** \_\_\_\_\_



**CIVIL & INTERIOR, HVAC, ELECTRICAL AND IT WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

**SUMMARY SHEET**

**CARPET AREA (sq.ft) = 86,000 sq.ft (approx.)**

SR.NO.	ITEM DESCRIPTION	AMOUNT (Rs.)
1	CIVIL & INTERIOR WORKS	₹ 233,265,543.00
2	HVAC WORKS	₹ 47,731,573.00
3	ELECTRICAL WORKS	₹ 57,836,446.00
4	IT/DATA CABELING WORKS	₹ 21,023,585.00
	<b>GRAND TOTAL</b>	<b>₹ 359,857,147.00</b>

CIVIL & INTERIOR, HVAC, ELECTRICAL AND IT WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC		
SUMMARY SHEET		
CARPET AREA (sq.ft) = 86,000 sq.ft (approx.)		
SR.NO.	ITEM DESCRIPTION	AMOUNT (Rs.)
1	CIVIL, INTERIOR & SANITARY WORKS	₹ 195,953,288.00
2	MODULAR & LOOSE FURNITURES, CHAIRS WORKS	₹ 37,312,255.00
3	HVAC WORKS	₹ 47,731,573.00
4	ELECTRICAL & PA WORKS	₹ 44,570,009.00
5	NOVAC, WLD, FIRE ALARM & FIRE FIGHTING WORKS	₹ 7,388,276.00
6	L.V SYSTEM (CCTV) & ACCESS CONTROL WORKS	₹ 4,736,340.00
7	RODENT REPELLANT WORKS	₹ 1,141,821.00
8	IT/DATA CABELING WORKS	₹ 21,023,585.00
	<b>GRAND TOTAL</b>	<b>₹ 359,857,147.00</b>

CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC		
CIVIL SUMMARY SHEET		
CARPET AREA (sq.ft) = 86,000 sq.ft (approx.)		
SR.NO.	ITEM DESCRIPTION	AMOUNT (Rs.)
1	DISMANTLING	₹ 3,483,528.00
2	ANTI-TERMITE TREATMENT	₹ 1,170,000.00
3	CORE CUTTING	₹ 146,000.00
4	MASONRY WORK & PLASTERING	₹ 4,194,110.00
5	WATER PROOFING WORK	₹ 657,359.00
6	FLOORING & DADO WORKS	₹ 52,842,257.18
7	WOODWORKS, WALL LINING, CARPENTRY WORKS	₹ 9,935,700.00
8	FALSE CEILING	₹ 16,916,968.00
9	PAINTING & FINISHING WORKS	₹ 6,031,594.88
10	PARTITION WORKS	₹ 68,174,908.00
11	MISCELLANEOUS	₹ 7,657,171.00
12	CARPENTARY	₹ 14,924,689.94
A	CIVIL & INTERIOR, DISMANTLING & ANTITERMITE TOTAL	₹ 186,134,286.00
B	SANITARY & PLUMBING	₹ 9,819,002.00
C	MODULAR FURNITURE	₹ 18,158,255.00
D	LOOSE FURNITURE	₹ 7,704,000.00
E	CHAIRS	₹ 11,450,000.00
	<b>GRAND TOTAL (A+B+C+D+E)</b>	<b>₹ 233,265,543.00</b>

**CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

<b>CARPET AREA (sq.ft): 86,000 approx</b>					
Sr No	Description	Units	Quantity	Rate (Rs.)	Total (Rs.)
<b>A</b>	<b>Civil:</b>				
<b>i</b>	<b>Dismantling Work</b>				
1	<b>Dismantling / Demolishing Workstations and Fixed Furniture</b> of all types i.e modular workstation, carpentry works, storages, etc by manually or mechanical means including carting away/ disposal of unserviceable material/ debris to a place approved by Mumbai Municipal Corporation.	Nos.	280.00	Rs. 300.00	Rs. 84,000.00
2	<b>Dismantling / Demolishing False ceiling</b> of all types i.e gypsum and mineral fibre etc by manually or mechanical means including carting away/ disposal of all unserviceable material/ debris to a place approved by Mumbai Municipal Corporation.	Sq.Mtr.	7800.00	Rs. 250.00	Rs. 1,950,000.00
3	<b>Dismantling / Demolishing flooring</b> of all types i.e marble, floor tiles,pcc & carpet etc by manually or mechanical means including carting away/ disposal of all unserviceable material/ debris to a place approved by Mumbai Municipal Corporation.	Sq.Mtr.	7800.00	Rs. 309.00	Rs. 2,410,200.00
4	Carefully dismantling and removing the <b>existing partitions/doors</b> from existing cabins and walls without disturbing the structure/ adjacent wall/ ceiling including carting away unserviceable material / debris to a place approved by Mumbai Municipal Corporation.	Sq.Mtr.	2600.00	Rs. 281.00	Rs. 730,600.00
5	Demolishing <b>existing brick work</b> in Cement/RCC with door jambs, window sills, lintels, dado, etc manually/ by mechanical means and carting away unserviceable material / debris to a place approved by Mumbai Municipal Corporation.	Cum	30.00	Rs. 2,369.00	Rs. 71,070.00
6	Demolishing <b>existing door jambs, window sills, lintels, dado, etc</b> in cement/ concrete manually/ by mechanical means and carting away unserviceable material / debris to a place approved by Mumbai Municipal Corporation.	Sq.Mtr.	675.00	Rs. 300.00	Rs. 202,500.00
7	Dismantling & removing <b>old wiring &amp; other serviceable items</b> i.e. Roller Blinds, storage, other loose furniture etc by manual or mechanical means and placing them to desired location within the premises as directed by Engineer in-charge. Rates to include carting away unserviceable material / debris to a place approved by Mumbai Municipal Corporation..	Lumpsum	1	Rs. 35,158.00	Rs. 35,158.00
8	<b>Buying Back the serviceable/ re-usable material</b> i.e. partition, glass, aluminum section, storage, other loose furniture etc as directed by Engineer In-charge. Reserve Price - Rs. 20,00,000/-	Lumpsum	-1.00		Rs. -2,000,000.00
<b>TOTAL DISMANTLING</b>					<b>Rs. 3,483,528.00</b>
<b>ii</b>	<b>ANTI-TERMITE TREATMENT</b>				
1	Providing & applying Pest Control & Anti-termite treatment by appointing a specialized agency. All work shall in general be executed as specified in IS : 6313 Part II-1981 & as per approved specification of the agency having special know-how for the job. Rates to include drilling 12 mm diameter holes at skirting level at the intervals of 300 mm to allow the chemical Chlorpyrifos/Lindane E.C. 20% with 1% concentration to seep into walls, and plugging with cement mortar 1 : 2 (1 cement : 2 Coarse sand) to match the existing floor.  All necessary work to ensure uniform distribution & proper penetration of treatment of treating solution shall be done according to the instruction of the Engineer In charge. This includes treatment to floor area, Walls, Surrounding pipes, Waste & Conduits, Junction of the Wall & the floor, Timber & Carpentry Works, Gypsum related works, etc all complete as per the instructions of Engineer In-charge / architect. ( Rates will be paid only on Carpet floor area only and no separate measurement for panelling / surfaces / ceiling separately)	Sq.Mtr.	7800.00	Rs. 150.00	<b>Rs. 1,170,000.00</b>
Agency Name - PCI/ PECOPP/ GODREJ HI-CARE or approved equivalent. Contractor to give a Pest control warranty certificate for 10 years of Pest control Treatment.					
<b>TOTAL ANTI TERMITE TREATMENT</b>					<b>Rs. 1,170,000.00</b>

CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC					
CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
	<p><b>Preamble:</b></p> <p>A) The quoted rate should include cost of necessary scaffolding, staging, centring, shuttering etc. as required for execution of the job at any height and location including removal of same. The scaffolding should be erected and anchored into the concrete members with help of expandable bolts, which are to be cut as the scaffolding is removed, no wall is to be punctured, at no extra cost to the Bank. Also, all the holes created needs to filled properly before handing over the project.</p> <p>B) Contractor has to make arrangements at his own cost to tie a safety net around the work so that loose material does not cause damage to the property or any human being, if necessary.</p> <p>C) Contractor has to make arrangements at his own cost to cover entire existing surface/ materials with Hessian cloth curtains so that does not cause any damage to the existing structures/ materials and even take care of dust control and carefully removing them complete.</p> <p>D) Contractor has to make arrangements at his own cost to cover entire existing flooring to avoid any damage. In case of any damage caused, contractor is liable to replace the damaged floor at their cost.</p> <p>E) Necessary care to be taken to avoid any damage to the existing facade, fittings, toilets etc. Any damage caused needs to be replace at Contractor's cost.</p>				
	<p>F) Rate for full height partition to include the cost of framework above false ceiling as required to fix the same to the ceiling slab for which no extra payment shall be made and the rate quoted shall be inclusive of the same. Measurement of Partition &amp; Panelling shall be limited upto the False Ceiling level. However the cost towards frameworks to be continued upto the main ceiling shall be deemed to have been considered in the quoted rates and no separate payment shall be made for the framework or supporting elements of partitions / panelling items, above the false ceiling level unless directed by the Architect / Site Engineer to extend the partition up till the ceiling.</p> <p>G) The rate shall be all inclusive of the necessary hardware, fittings, fixtures &amp; including glass &amp; finishing for the same. The fittings needs to be got finalised by the Architect / Site Engineer before procuring the same. The rate shall be also inclusive of pattas &amp; bands, grooves at any level, any design in veneer, textures etc including the necessary framing/ openings for Electrical, Telephone &amp; AC outlets. Further it is important to note that the Glasses wherever specified for the items of Partitions &amp; Panelling if any shall have bevelled edges as per the direction &amp; thickness as indicated by the Architect or Engineer in charge.</p> <p>H) The Brand should use as per Approved makes given and all Rate shall include scaffolding hardware, necessary transportation, execution of work at all heights and locations including all lead, lift, wastage, statutory liabilities etc. complete.</p> <p>I) Before Handover Contractor should get deep cleaning done by professional agency for all the items visible from Floor to ceiling etc. complete.</p>				
<b>A</b>	<b>CIVIL AND INTERIOR FURNISHING WORKS</b>				
<b>1</b>	<b>CORE CUTTING</b>				
	Core cutting in existing R.C.C wall or slab upto 200 mm dia and up to 300 mm deep in size. The rate shall include making good of the core with air tight micro concreting and water proofing after completing the work. The work should be tested for leak proof to the satisfaction of the EIC/Architect.				
1.1	75 MM dia	NOS	40.00	1,200.00	₹ 48,000.00
1.2	100 MM dia	NOS	20.00	1,500.00	₹ 30,000.00
1.3	120 MM dia	NOS	20.00	1,600.00	₹ 32,000.00
1.4	150 MM dia	NOS	20.00	1,800.00	₹ 36,000.00
	<b>TOTAL (CORE CUTTING)</b>				₹ 146,000.00
<b>2</b>	<b>MASONRY WORK &amp; PLASTERING</b>				
<b>2.1</b>	<b>Cement Blocks Masonry</b>				
	<p>Providing and constructing 100 mm thick <b>AAC concrete block masonry</b>, Having rough surface to receive the plaster effectively, blocks conforming to IS 2185 (Part-III) masonry with approved block laying polymer modified adhesive mortar per manufacturer's instructions, including providing RCC patli beam(Lintel) of 100mm thick at every 1.00m c/c with 2 nos. 8 mm dia Tor bars and 6 mm dia links at 300 c/c in cement concrete of mix M 20, required formwork complete with raking out joints, curing, independent double legged scaffolding as per specifications etc. at heights, depths and leads as directed by PM to his entire satisfaction.</p> <p>Make: Siporex, Aerocon, Billtech, Ecolite, Ascolite Ultratech</p>	CUM	50.00	11,725.00	₹ 586,250.00

CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC					
CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
2.2	Brick Work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure at all floor levels in all shape and size in Cement Mortar 1:6 (1 cement : 6 coarse sand). The rate includes providing and placing in position 2 Nos 6 mm dia M.S. bars at every third course of masonry work.	CUM	10.00	8,202.00	₹ 82,020.00
2.3	<b>Internal Plaster - 12mm thick</b> Providing and applying internal plaster - average 12 mm thick in Cement Mortar 1:4 (1 cement : 4 fine sand) without neeru finish in all positions, levels and heights including finishing, shuttering, scaffolding, curing, etc., adding polypropylene fibre of approved quality in desired quantity per bag of cement as per manufacturers specifications complete as per directions of the EIC/ Architect. Cost to be inclusive of providing chicken mesh wherever applicable/instructed.	SQM	1925.00	489.00	₹ 941,325.00
2.4	<b>Ceiling Plaster - 6mm thick</b> Providing and applying internal ceiling plaster - average 6mm thick in Cement Mortar 1:4 (1 cement : 4 fine sand) without neeru finish in all positions, levels and heights including finishing, shuttering, scaffolding, curing, etc., adding polypropylene fibre of approved quality in desired quantity per bag of cement as per manufacturers specifications complete as per directions of the EIC/ Architect. Cost to be inclusive of providing chicken mesh wherever applicable/instructed.	SQM	400.00	346.00	₹ 138,400.00
2.5	<b>Plain Cement Concrete</b> Providing and laying in position ready mixed plain cement concrete, with cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads and lifts, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the EIC/Architect. M-10 grade plain cement concrete (cement content considered @ 220 kg/cum). Flooring should be smooth enough to lay carpet, vinyl or any other soft floor.				
2.5.1	Providing and laying in position cement concrete of M-15 grade at all floor levels including the cost of centering, shuttering and finishing.	CUM	200.00	10,160.00	₹ 2,032,000.00
2.5.2	Cement Concrete 1:3:6 (one cement : 3 coarse sand : 6 graded stone aggregates of 12/20 mm nominal size).	CUM	40.00	8,389.00	₹ 335,560.00
2.6	<b>Reinforced Cement Concrete - RCC</b>				
2.6.1	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level at all floor levels, including the cost of centering, shuttering and finishing with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	CUM	5.00	13,231.00	₹ 66,155.00
2.6.2	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level at all floor levels.				
	Thermo-Mechanically Treated bars of grade Fe-500D or more	KG	100.00	124.00	₹ 12,400.00
<b>TOTAL (MASONRY WORK &amp; PLASTERING)</b>					<b>₹ 4,194,110.00</b>
3	<b>WATER PROOFING WORK</b>				
3.1	<b>Water proofing in toilets</b>				
	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces, toilets etc., consisting of following operations :				
	(a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS.2645 and approved by EIC/Architect over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment.				
	b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of Cement Mortar 1:5 (1 cement:5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by EIC/Architect over 20 mm thick layer of Cement Mortar of mix 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by EIC/Architect to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.				



**CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
	(c) After four days of proper curing applying a second coat of cement slurry using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by EIC/Architect.				
	(d) Finishing the surface with 20 mm thick jointless Cement Mortar of mix 1:4 (1 cement : 4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by EIC/Architect including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep.				
	(e) The whole area/terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order with 5 days ponding test and 5 year warranty certificate to be provided and as directed and specified by the EIC/Architect.				
	With average thickness of 120-200 mm and minimum thickness at khurra as 65 mm.	SQM	69.00	1,937.00	₹ 133,653.00
<b>3.2</b>	<b>Chemical Waterproofing</b>				
	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying :				
	(a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours.				
	(b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours.				
	The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry along with 5 days ponding test and 5 year warranty certificate to be provided	SQM	487.00	710.00	₹ 345,770.00
	<b>Waterproofing for Window Sill / Exterior Cladding</b>				
<b>3.3</b>	Providing and laying waterproofing treatment between window with new plaster as per site requirement instructed by Engineer In-charge & filling joints and gaps in external cladding /marble with epoxy based tile grout of make Asian/Fosroc/Sunanda or equivalent approved make, finishing, necessary scaffolding etc. complete	SQM	355.87	500.00	₹ 177,936.00
	<b>TOTAL (WATER PROOFING WORK)</b>				₹ 657,359.00
<b>4</b>	<b>FLOORING &amp; DADO WORKS</b>				
<b>4.1</b>	<b>Granite Slab Flooring</b>				
	Providing and laying Polished Granite stone flooring in required design, inlay and patterns, in linear as well as curvilinear portions of the building, also for all types of granite treads and risers with half round edge and 3 nos. grooves to be provided all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of Cement Mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc., all complete as specified and as directed by the EIC/Architect. Basic rate: Rs.3000/- Per Sqmt	SQM	100.00	6,749.00	₹ 674,900.00
<b>4.2</b>	<b>Granite Wall Dado</b>				
	Providing and fixing machine cut, mirror polished stone work for wall lining including dado, skirting, risers of steps, columns etc., of required design and pattern where ever required, stones of different finished surface textured, on 12 mm (average) thick Cement Mortar 1:3 (1 cement : 3 coarse sand) laid and jointed with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc., all complete as per Architectural drawings and as directed by the EIC/Architect. Rate shall be inclusive of forming V or U groove or any other shape of size not more than 10 mm wide and 5mm depth to Italian marble/ composite marble dado/ granite at the horizontal & vertical joints at the required places including polishing to give high gloss finish. Rate shall include half round moulding required places including polishing to give high gloss finish etc., complete, as per the Architectural drawings and as directed by the EIC/Architect. Basic rate: Rs.3000/- Per Sqmt	SQM	100.00	7,412.00	₹ 741,200.00

**CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
<b>4.3</b>	<b>Italian Marble flooring.</b>				
	Providing and laying machine cut, mirror polished Marble stone flooring, in required design and in patterns in combination with Italian marble stones inlay of different colours, shades and finished surface texture etc., in linear as well as curvilinear portions of the building, storage tops, etc all complete as per the architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of Cement Mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing, curing and polishing, edge rounding (wherever required) etc., all complete as specified and as directed by the EIC/Architect. Cost inclusive of inlay work in curve shapes as per Architectural drawing.	SQM	861.00		
	Basic rate: Rs.6,000/- Per Sqmt		430.50	13,464.00	₹ 5,796,252.00
	Basic rate: Rs.8,000/- Per Sqmt		430.50	17,390.00	₹ 7,486,395.00
<b>4.4</b>	<b>Italian Marble Wall Dado</b>				
	Providing and fixing machine cut, mirror polished stone work for wall lining including dado, skirting, risers of steps, columns etc., of required design and pattern where ever required, stones of different finished surface textured, on 12 mm (average) thick Cement Mortar 1:3 (1 cement : 3 coarse sand) laid and jointed with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc., all complete as per Architectural drawings and as directed by the EIC/Architect. Rate shall be inclusive of forming V or U groove or any other shape of size not more than 10 mm wide and 5mm depth to Italian marble/ composite marble dado/ granite at the horizontal & vertical joints at the required places including polishing to give high gloss finish. The rate shall include half round moulding required places including polishing to give high gloss finish etc., complete, as per the Architectural drawings and as directed by the EIC/Architect.	SQM	478.62		
	Basic rate: Rs.6,000/- Per Sqmt		239.31	17,474.00	₹ 4,181,659.26
	Basic rate: Rs.8,000/- Per Sqmt		95.72	21,401.00	₹ 2,048,567.92
<b>4.5</b>	<b>Ceramic Tiles Dado</b>				
	Providing and fixing 1st quality ceramic glazed wall tiles of size 300x450mm conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, of any size as mentioned in drawings and as approved by Engineer-In-Charge, in skirting and dados, over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm, including pointing in white cement mixed with pigment of matching shade complete including epoxy grouting in matching shade of joints with 5mm spacers. Basic rate- 700/- per sqm approved makes (Kajaria, Somany, Johnson)	SQM	710.00	1,400.00	₹ 994,000.00
<b>4.6</b>	<b>Vitrified Floor Tiles</b>				
	Providing and laying Vitrified tiles in floor with 100mm skirting of different sizes (thickness to be specified by the manufacturer), conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including epoxy grouting in matching shade of joints with 5mm spacers.				
	<b>Size of Tile 900mmX900mm of approved makes (Kajaria, Somany, Johnson)</b> Basic rate: Rs. 750/- per sqm	SQM	3702.00	2,514.00	₹ 6,663,600.00
	<b>Size of Tile 1200mmX1800mm of approved makes (Kajaria, Somany, Johnson)</b> Basic rate: Rs. 1000/- per sqm	SQM	2773.00	2,200.00	₹ 6,100,600.00
<b>4.7</b>	<b>Vitrified Tiles in dado</b>				
	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc., complete. Basic rate: Rs. 1000/- per sqm				
	<b>Size of Tile 900mmX900mm of approved makes (Kajaria, Somany, Johnson)</b> Basic rate: Rs. 750/- per sqm	SQM	880.00	1,867.00	₹ 1,642,960.00
	<b>Size of Tile 600mmX1200mm of approved makes (Kajaria, Somany, Johnson)</b> Basic rate: Rs. 900/- per sqm	SQM	880.00	1,867.00	₹ 1,642,960.00

**CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
4.8	<b>Carpet Flooring</b>				
	<p>Providing &amp; fixing 100% Nylon based solution dyed tufted loop pile carpet tiles of approved size, make &amp; pattern having minimum pile weight of 600 gm per sqm and minimum pile thickness of 2.5 mm in flooring over smooth &amp; damp proof base using rubber based adhesive of approved quality &amp; make complete as per manufacturer's specifications &amp; direction of the EIC/Architect. Carpet to be covered with 2 layers of plastic till handover of the project</p> <p>Basic rate of Carpet: Rs.3,500/- Per Sqmt</p> <p>Make - Floatex, Shaw, Mohawk or approved equivalent</p>	SQM	926.00	4,010.00	₹ 3,713,260.00
4.9	<b>False Access Flooring (for hub rooms &amp; server rooms)</b>				
	<p>Providing and fixing removable raised/false access flooring with system and its components of approved make for different plenum height with possible height adjustment upto 50 mm, comprising of modular load bearing floor panels supported on G.I. rectangular stinger frame work and G.I. Pedestal etc., all complete, as per the architectural drawings, as specified and as directed by Engineer-in-charge consisting of:</p> <p>(a) Providing at required spacing to form modular framework, pedestals made out of GI tube of thickness minimum 2 mm and 25 mm outer diameter, fully welded on to the G.I. Base plate of size 100mm x 100mm x 3mm at the bottom of the pedestal tube, G.I. pedestal head of size 75mmx75mmx3.5 mm welded with GI fully threaded stud 16mm outer diameter with two GI Check nuts screwed on the stud for level adjustment upto 50mm, locking and stabilizing the pedestal head in position at the required level. The pedestals shall be fixed to the subfloor (base) through base plate using epoxy based adhesive of approved make or the machine screw with rawl plug.</p>				
	<p>(b) Stringers system in all steel construction hot dipped galvanized of rectangular size 570x20x30x0.80mm thick having holes at both ends for securing the stringers on to the pedestal head using fully threaded screws ensuring maximum lateral stability in all directions, the grid formed by the pedestal and stringer assembly shall receive the floor panel, this system shall provide adequate solid, rigid support for access floor panel, the system shall provide a minimum clear uninterrupted clearance between the bottom of the floor for electrical conduits and wiring etc., all complete as per the architectural drawings, as specified and as directed by the Engineer-in-charge.</p>				
	<p>(c) Providing and fixing Access Floor panel of 600x600x32 mm medium grade Filled Steel anti static high pressure Lamination of 800H grade (FS800H). Access Floor panel shall be steel welded construction with an enclosed bottom pan with uniform pattern of 64 hemispherical cones. The top and bottom plates of Steel Gauges: top 0.6 mm and bottom 0.7mm fused spot welded together (minimum 64 welds in each dome and 20 welds along each flange). The panel should be Corrosist epoxy coated for lifetime rust protection and cavity formed by the top and bottom plate is filled with Pyrogrip noncombustible Portland cementitious core mixed with lightweight foaming compound. The access floor shall be factory finished with Anti-static High Pressure laminate with Non Warp technology upto 1mm thickness for superior adhesion and Surface flatness within 0.75mm. The panel is to withstand a Concentrated Load of 363 kgs applied on area 25mm x 25mm without collapse in the centre of the panel which is placed on four steel blocks. The panel will withstand and Uniformly Distributed Load (UDL) minimum 1250 kg/sqm and an impact load of 50kg all complete as per the approved manufacturers specification and as per the direction of EIC/Architect. All specification must be printed on the side of the panel to ensure the quality of the product.</p>				
4.9.1	150 mm Finished Floor Height (FFH)	SQM	276.00	6,468.00	₹ 1,785,168.00
4.10	<b>False Access Flooring (for 4th floor workstation area)</b>				
	<p><b>Providing and fixing</b> Access Floor panel of size 600 x 600 mm shall be all steel welded construction with an enclosed bottom pan of 64 hemispherical cones and the top plain sheet is fuse-welded at 64 locations to form a panel. <b>All the four sides of the panel should double fold wrapped around the perimeter edges to ensure damage free edges and flat smooth floor post installation.</b></p> <p>The hollow panels are pretreated and coated with electrostatically deposited epoxy resin 60-80 micron thick on all the exposed sides of the panel. The hollow core of the panel is injected with a light weight, fire retardant, noncombustible cementitious compound at high pressure to ensure support of not less than 90% of the top surface area of the panel.</p> <p>The panel shall have located 4 corner holes on all edges for bolting the panel to the substructure to form a rigid levelled floor. Cost to be inclusive of providing ramps and steps wherever required to level height difference.</p>	SQM	1550.00	4,303.70	₹ 6,670,735.00

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CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
	<b>SUB STRUCTURE -PEDESTAL ASSEMBLY :</b> The pedestal assembly shall provide easy adjustment of levelling and accurately align panels for a maximum of $\pm 25$ mm in the vertical direction. The substructure assembly shall be suitably anchored to the floor with a suitable adhesive as recommended by the manufacturer. All steel Components shall be Galvanized & Electro plated as per manufacturers offer systems & Standard Practices. The sub structure should bear concentrated load of 360 kgs and uniformly distributed load of 1650kgs/m2.				
	Make: Unitile, or approved equivalent				
<b>4.11</b>	<b>Luxury Vinyl Tile (for 4th floor workstation room)</b>				
	Providing & laying 4.0mm-5.0mm thick lvt tiles & planks. The flooring tile and planks must have wear layer of 0.55mm. The flooring tiles and planks must have sufficient abrasion and slip resistance. Tile size should be 50x50 cm / 75x50 cm / 100x100 cm. Plank size should be 100x16.6 cm / 100x20 cm / 120x20cm / 150x20 cm. Vinyl flooring to be installed over approved self levelling compound. Basic rate: Rs. 2500 /sqm. Make: Forbo, Interface or approved equivalent	SQM	1000.00	2,700.00	₹ 2,700,000.00
	<b>TOTAL (FLOORING &amp; DADO WORKS)</b>				₹ 52,842,257.18
<b>5</b>	<b>DOORS, WOODWORKS, CARPENTRY</b>				
<b>5.1</b>	<b>Door jams in step manner</b>				
	Providing and fixing in position 150mm wide 18mm thk pre-polished granite jams for window frames and Toilet door frames in step manner with minimum overlapping of 50mm, laid over 20mm thick base Cement Mortar 1:4 (1 cement : 4 coarse sand) and cement paste, including necessary rounding of visible edges of granite jams on both faces. Rate includes making moulding & mirror polishing the edges, grouting the joints with white cement & matching pigment etc., all complete as per drawing and the direction of the EIC/Architect. Running length taken together for both the granite jams only will be considered for payment. Basic rate: Rs 2,500/- Per Sqmt	RMT	160.00	1,490.00	₹ 238,400.00
<b>5.2</b>	<b>Window Sill &amp; Jams</b>				
	Providing and fixing in position 300mm wide, 18 mm thk mirror polished Granite / Marble slabs in jams for window sill laid over 12mm thick base Cement Mortar 1:4 (1 cement : 4 coarse sand) and cement paste, including necessary moulding on edges of Granite/ Marble jamb. Rate includes making moulding & mirror polishing the edges, grouting the joints with white cement & matching pigment etc., The entire work is to be completed as per the direction of the EIC/Architect. Basic rate: Rs 2,500/- Per Sqmt	SQM	359.00	4,000.00	₹ 1,436,000.00
<b>5.3</b>	<b>Granite Pantry Platforms</b>				
	Providing and fixing 18 mm thick, 700mm deep machine cut, mirror polished, premoulded and pre polished granite stone for kitchen platforms including front facias and skirting of required size/profile, approved shade, colour and texture laid over 18 mm thick Indian Marble using 20 mm thick base of Cement Mortar 1:4 (1 cement : 4 coarse sand). The vertical supports are to be made of 18+18 mm thick Indian Marble sandwiched together. All the Joints to be treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding, polishing to edges to give high gloss finish, making openings & holes of required size for fixtures and fittings etc., complete at all levels as per the architectural drawings as directed by the EIC/Architect. The Item includes cost of Indian Marble. Basic rate: Rs.2,500/- Per	RMT	142.00	10,000.00	₹ 1,420,000.00
<b>5.4</b>	<b>Single Leaf Glass Door (cabins)</b>				
	Providing and fixing single leaf swing glass door of size 1000 x 2250mm with single layer of 10mm thk toughened glass for door. Door frame to be of powder coated aluminum (min. 16 gauge) of size 100mm x 45mm with stiles of 100mm x 45mm each. Cost of the door to be inclusive of flush hinge (127 x 78 x 3mm), SS304 satin finish narrow stile deadlock with euro profile cylinder, having 600mm height H-type handle, slide channel door closer with hold open unit, half moon door stopper and concealed drop seal below door. Rate should be inclusive of all hardware as detailed below. The entire item is to be completed as per the direction of the EIC/Architect.	SQM	60.50	21,000.00	₹ 1,270,500.00
	Standard top and bottom patch fittings in satin SS finish				
	Standard top pivot and bottom lock with strike plate in satin SS finish				
	H-shaped back to back pull handle of height 600mm and 25mm dia in satin stainless steel. Handles to have supporting washer with raised bevelling on the outer surface.				
	Half dome floor stopper with 45mm dia with fixing accessories in satin chrome finish				
	All Harware make - Dorma or equivalent				

**CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
<b>5.5</b>	<b>Double Leaf Glass Door (lobby)</b>				
	Providing and fixing double leaf swing glass door of size 1500 x 2250mm with single layer of 10mm thk toughened glass for door. Door frame to be powder coated aluminum (min. 16 gauge) of size 100mm x 45mm with stiles of 100mm x 45mm each. Cost of the door to be inclusive of flush hinge (127 x 78 x 3mm), SS304 satin finish narrow stile dead, H-type handle 350mm, Slide channel door closer with hold open unit, half moon door stopper and concealed drop seal below door. Rate should be inclusive of all hardware as detailed below. The entire item is to be completed as per the direction of the EIC/Architect.	SQM	51.00	21,000.00	₹ 1,071,000.00
	3 Ball bearing butt hinges of size 4" x 3" x 3mm, in SS304				
	Rack and pinion door closer size 2-4 with standard arm and two independent closing valves and latching speed adjustable by arm in silver finish				
	Narrow stile bolt lock with 25mm backset, 24mm sq. forend, prepared for euro profile cylinder including strike plate in satin stainless steel finish.				
	6 pin Euro profile double cylinder with both side key operation under master key system having total length 70mm (35mm+35mm) in nickel plated finish with 3 nos. keys				
	Narrow profile escutcheons in satin stainless steel finish				
	H-handle having length 350mm and 25mm dia, back to back pull handle in satin stainless steel. The pull handles should have supporting washer with raised bevelling on the outer surface.				
	Floor stopper half dome with 45mm dia with fixing accessories in satin chrome finish				
	All Hardware make - Dorma or equivalent				
<b>5.6</b>	<b>SS Fire Rated Double Leaf Glass Door (4th floor dealing room)</b>				
	Providing and fixing of tested fully glazed steel fire rated double/single leaf door with 120 minutes fabricated with 1.6 mm thick stainless steel sheet. The door frames are manufactured from 1.6 mm thick stainless steel sheet pressed to form vertical sides and horizontal side (sizes as per the manufacturer specification). The door shutter would have a top rail and side rail and a bottom rail (sizes as per the manufacturer specification). The glass should be 11mm thick, clear 120 min fire rated Non Wired Toughened Interlayered glass. The glass should be held in its place with the help of 1.6 mm thick SS beading and a special ceramic tape with cross section as per the test evidence. The shutters should be fixed to the frame using SS Ball Bearing Hinges of size 100 mm x 89 mm x 3 mm thickness or equivalent. Beading should be attached using SS screws. The door should be fitted with Mortise Sash lock and door closer of approved equivalent. The inactive leaf should be fixed to the frame using 300 mm long tower bolt at top and 300 mm long tower bolt at bottom or approved equivalent. The profiles shall be filled with rock wool as per manufacturer specification. Rate should be inclusive of all hardware. The entire item is to be completed as per the direction of the EIC/Architect.				
	The glass should be minimum 11 mm thick, non-wired, interlayered and toughened with 120 minutes stability and integrity. The glass should be held in a place with the help of stainless steel beading. The glass shall be of Saint gobain/AIS or approved equivalent. Rate should be inclusive of all hardware. The entire item is to be completed as per the direction of the EIC/Architect.	SQM	24.00	50,000.00	₹ 1,200,000.00
	Fire rated 5 knuckle, 2 ball bearing butt hinges size 4" x 3" x 3mm, in SS304 satin stainless finish.				
	Fire rated rack and pinion door closer size 2-4 with standard arm and with two independent closing valves and latching speed adjustable by arm in silver finish.				
	Gravity type co-ordinator in satin stainless finish				
	Fire rated mortice dead lock with 55mm backset, 20mm square forend and prepared for euro profile cylinder including strike plate in satin stainless steel.				
	6 pin Euro profile double cylinder with both side keys operation under master key system in nickel finish having 3 nos. change keys				
	Escutcheons prepared for euro profile cylinder suitable for dead lock in satin stainless steel finish.				
	H-handle having length 350mm and 25mm dia, back to back pull handle in satin stainless steel. The pull handles should have supporting washer with raised bevelling on the outer surface.				
	Fire rated lever action flush bolt with 19mm projecting bolt having length 300mm in satin chrome finish				

**CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
	Dust excluding socket with 16mm dia hole, fully morticed on the floor in satin chrome finish				
	Self Adhesive smoke seal fixed on the Frame, Long Double Doorset having Width- 1 x 2000mm, Height- 2 x 2700mm. The seal should be fire tested, Durability over 1,000,000 cycles. Material: semi-rigid flame retardant PVC Rigid PVC Base, Flexible elastomeric fins.				
	Automatic Drop down Seal of length 820 mm. Suitable Sealing Gap upto 15mm; . UL Listed, Durability over 1,000,000 cycles. Material : Body - Silver/ black anodised Aluminium, Gasket - Black, End Caps - Stainless Steel (Can be cut upto 610mm)				
	Floor stopper half dome with 45mm dia with fixing accessories in satin chrome finish				
	All Harware make - Dorma or equivalent				
<b>5.7</b>	<b>Single Leaf Solid Door with Vision Panel</b>				
	Providing and fixing Solid Core Flush Door Shutter (IS - 2202) of 40 mm thk. finished both side with approved 1mm thk Laminate finish with vision panel of size 750mm (h) x 250mm (w). All edges of the door to be covered with necessary lipping with three coat of Melamine polish finish. The work should be completed as per specification. Rate should be inclusive of all hardware as given below. The entire item is to be completed as per the direction of the EIC/Architect	SQM	56.00	13,500.00	₹ 756,000.00
	2 Ball bearing butt hinges of size 4" x 3" x 3mm, in SS 304 and in satin stainless steel finish.				
	Rack and pinion door closer of size 2-4, with standard arm and with two independent closing valves and latching speed adjustable by arm in silver finish.				
	Mortice dead lock with 55mm backset, 20mm square forend, prepared for euro profile cylinder including strike plate in satin stainless steel finish.				
	6 Pin Euro Profile Double Cylinder with Both side Key operation Under Master Key System having Length 60mm (30mm+30mm) in nickel plated finish having 3 nos Change Keys.				
	Escutcheons prepared for euro profile cylinder suitable for dead lock in satin stainless steel finish				
	H-handle of length 300 and 22mm dia, back to back in satin stainless steel finish. The pull handles should have supporting washer with raised bevelling on the outer surface.				
	Floor stopper half dome with 45mm dia with fixing accessories, in satin Chrome finish				
	All Harware make - Dorma or equivalent				
<b>5.8</b>	<b>Single Leaf Solid Door with Vision Panel (big cabins)</b>				
	Providing and fixing Solid Core Flush Door Shutter (IS - 2202) of 40 mm thk. finished both side with approved 4mm thk Veneer finish in melamine polish with vision panel of size 750mm (h) x 250mm (w). All edges of the door to be covered with necessary lipping with three coat of Melamine polish finish. The work should be completed as per specification. Rate should be inclusive of all hardware as given below. The entire item is to be completed as per the direction of the EIC/Architect	SQM	14.52	15,000.00	₹ 217,800.00
	2 Ball bearing butt hinges of size 4" x 3" x 3mm, in SS 304 and in satin stainless steel finish.				
	Rack and pinion door closer of size 2-4, with standard arm and with two independent closing valves and latching speed adjustable by arm in silver finish.				
	Mortice dead lock with 55mm backset, 20mm square forend, prepared for euro profile cylinder including strike plate in satin stainless steel finish.				
	6 Pin Euro Profile Double Cylinder with Both side Key operation Under Master Key System having Length 60mm (30mm+30mm) in nickel plated finish having 3 nos Change Keys.				
	Escutcheons prepared for euro profile cylinder suitable for dead lock in satin stainless steel finish				
	H-handle of length 300 and 22mm dia, back to back in satin stainless steel finish. The pull handles should have supporting washer with raised bevelling on the outer surface.				
	Floor stopper half dome with 45mm dia with fixing accessories, in satin Chrome finish				
	All Harware make - Dorma or equivalent				



**CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
5.9	<b>Fire Rated Single Leaf Metal Door with Vision Panel (elec, hub, server room)</b>	SQM	46.00	22,000.00	₹ 1,012,000.00
	Supply of Metal Fire door from ISO 9001:2015 certified Manufacturer . The door must have been manufactured with galvanised – GI sheet. All Fire doors must satisfy the requirement of latest IS 3614:2021 for Fire & Life Safety guidelines for 120 minutes Fire Rating with its Stability & Integrity for 120 minutes. The Prototype sample of the door must carry a prior test evidence as per IS 3614 part-2 / BS 476 Part 20 & 22 . The manufacturer must submit the copy of test evidence prior to start of production .The offered test certificate should either carries it's Validity or certificate must not be older than 5 years from CBRI / NABL Accredited Lab . All doors should be finished with Powder coating in desired regular RAL Shades. Door frame shall be Single rebate profile of section 100 x 57 mm made out of 1.20mm thick galvanised steel sheet with a factory pre-punched groove so as to accomodate Fire & smoke seal size 10x4mm . Frames should be butt jointed and field assembled with bolting system for proper strength .Frames should be provided with back plate for anchor fasteners for installation on a finished plastered wall opening. The Air gap between Wall and frame can be filled with fire retardant sealant (payable in extra item).Door leaf should be minimum 46mm thick fully flush double skin door. Door leaf must be manufactured from 1.2mm (18 gauge) thick galvanised steel sheet. The door should be provided with reinforcement pads to receive appropriate Hardware of Equivalent make. The Shutter shall be filled with proprietary infill material as per test evidence . Vision panels of size 750mm (h) x 250mm (w) required should be of 120 minutes fire rating and should be of non-wired type. Hardware to include panic bar push door handle. Rate should be inclusive of all hardware as specified below. The entire item is to be				
	2 Ball bearing butt hinges of size 4" x 3" x 3mm, in SS 304 and in satin stainless steel finish.				
	Rack and pinion door closer of size 2-4, with standard arm and with two independent closing valves and latching speed adjustable by arm in silver finish.				
	Mortice dead lock with 55mm backset, 20mm square forend, prepared for euro profile cylinder including strike plate in satin stainless steel finish.				
	6 Pin Euro Profile Double Cylinder with Both side Key operation Under Master Key System having Length 60mm (30mm+30mm) in nickel plated finish having 3 nos Change Keys.				
	Escutcheons prepared for euro profile cylinder suitable for dead lock in satin stainless steel finish				
	H-handle of length 300 and 22mm dia, back to back in satin stainless steel finish. The pull handles should have supporting washer with raised bevelling on the outer surface.				
	Floor stopper half dome with 45mm dia with fixing accessories, in satin Chrome finish				
	All Harware make - Dorma or equivalent				
5.10	<b>Fire Rated Single Leaf Metal Door with Vision Panel (fire staircase)</b>	SQM	35.00	30,000.00	₹ 1,050,000.00
	Supply of Metal Fire door from ISO 9001:2015 certified Manufacturer . The door must have been manufactured with galvanised – GI sheet. All Fire doors must satisfy the requirement of latest IS 3614:2021 for Fire & Life Safety guidelines for 120 minutes Fire Rating with its Stability & Integrity for 120 minutes. The Prototype sample of the door must carry a prior test evidence as per IS 3614 part-2 / BS 476 Part 20 & 22 . The manufacturer must submit the copy of test evidence prior to start of production .The offered test certificate should either carries it's Validity or certificate must not be older than 5 years from CBRI / NABL Accredited Lab . All doors should be finished with Powder coating in desired regular RAL Shades. Door frame shall be Single rebate profile of section 100 x 57 mm made out of 1.20mm thick galvanised steel sheet with a factory pre-punched groove so as to accomodate Fire & smoke seal size 10x4mm . Frames should be butt jointed and field assembled with bolting system for proper strength .Frames should be provided with back plate for anchor fasteners for installation on a finished plastered wall opening. The Air gap between Wall and frame can be filled with fire retardant sealant (payable in extra item).Door leaf should be minimum 46mm thick fully flush double skin door. Door leaf must be manufactured from 1.2mm (18 gauge) thick galvanised steel sheet. The door should be provided with reinforcement pads to receive appropriate Hardware of Equivalent make. The Shutter shall be filled with proprietary infill material as per test evidence . For Double leaf doors; astragal has to be provided in meeting style for both active and inactive leaf. Vision panels of size 750mm (h) x 250mm (w) required should be of 120 minutes fire rating and should be of non-wired type. Hardware to include panic bar push door handle. Rate should be inclusive of all hardware. The entire item is to be completed				
	2 Ball bearing butt hinges of size 4" x 3" x 3mm, in SS 304 and in satin stainless steel finish.				
	Rack and pinion door closer of size 2-4, with standard arm and with two independent closing valves and latching speed adjustable by arm in silver finish.				
	Mortice dead lock with 55mm backset, 20mm square forend, prepared for euro profile cylinder including strike plate in satin stainless steel finish.				

**CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
	6 Pin Euro Profile Double Cylinder with Both side Key operation Under Master Key System having Length 60mm (30mm+30mm) in nickel plated finish having 3 nos Change Keys.				
	Escutcheons prepared for euro profile cylinder suitable for dead lock in satin stainless steel finish				
	H-handle of length 300 and 22mm dia, back to back in satin stainless steel finish. The pull handles should have supporting washer with raised bevelling on the outer surface.				
	Floor stopper half dome with 45mm dia with fixing accessories, in satin Chrome finish				
	All Harware make - Dorma or equivalent				
<b>5.11</b>	<b>Fire Rated Double Leaf Metal Door with Vision Panel (ahu room)</b>	<b>SQM</b>	<b>12.00</b>	<b>22,000.00</b>	<b>₹ 264,000.00</b>
	Supply of Metal Fire door from ISO 9001:2015 certified Manufacturer . The door must have been manufactured with galvanised – GI sheet. All Fire doors must satisfy the requirement of latest IS 3614:2021 for Fire & Life Safety guidelines for 120 minutes Fire Rating with its Stability & Integrity for 120 minutes. The Prototype sample of the door must carry a prior test evidence as per IS 3614 part-2 / BS 476 Part 20 & 22 . The manufacturer must submit the copy of test evidence prior to start of production .The offered test certificate should either carries it's Validity or certificate must not be older than 5 years from CBRI / NABL Accredited Lab . All doors should be finished with Powder coating in desired regular RAL Shades. Door frame shall be Single rebate profile of section 100 x 57 mm made out of 1.20mm thick galvanised steel sheet with a factory pre-punched groove so as to accomodate Fire & smoke seal size 10x4mm . Frames should be butt jointed and field assembled with bolting system for proper strength .Frames should be provided with back plate for anchor fasteners for installation on a finished plastered wall opening. The Air gap between Wall and frame can be filled with fire retardant sealant (payable in extra item).Door leaf should be minimum 46mm thick fully flush double skin door. Door leaf must be manufactured from 1.2mm (18 gauge) thick galvanised steel sheet. The door should be provided with reinforcement pads to receive appropriate Hardwares of Equivalent make. The Shutter shall be filled with proprietary infill material as per test evidence . For Double leaf doors; astragal has to be provided in meeting style for both active and inactive leaf. Vision panels of size 750mm (h) x 250mm (w) required should be of 120 minutes fire rating and should be of non-wired type. Rate should be inclusive of all hardware. The entire item is to be completed as per the direction of the EIC/Architect.				
	2 Ball bearing butt hinges of size 4" x 3" x 3mm, in SS 304 and in satin stainless steel finish.				
	Rack and pinion door closer of size 2-4, with standard arm and with two independent closing valves and latching speed adjustable by arm in silver finish.				
	Mortice dead lock with 55mm backset, 20mm square forend, prepared for euro profile cylinder including strike plate in satin stainless steel finish.				
	6 Pin Euro Profile Double Cylinder with Both side Key operation Under Master Key System having Length 60mm (30mm+30mm) in nickel plated finish having 3 nos Change Keys.				
	Escutcheons prepared for euro profile cylinder suitable for dead lock in satin stainless steel finish				
	H-handle of length 300 and 22mm dia, back to back in satin stainless steel finish. The pull handles should have supporting washer with raised bevelling on the outer surface.				
	Floor stopper half dome with 45mm dia with fixing accessories, in satin Chrome finish				
	All Harware make - Dorma or equivalent				
	<b>TOTAL (DOORS, WOODWORKS, CARPENTRY)</b>				<b>₹ 9,935,700.00</b>



**CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
<b>6</b>	<b>FALSE CEILING</b>				
<b>6.1</b>	<b>Gypsum Board False Ceiling</b>				
	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				
	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 3 layers 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 EIC/Architect but including the cost of painting with pop and punning : Rate shall be inclusive of vertical gypsum band of height 330mm and cove.				
<b>6.1.1</b>	12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- (Part I)	SQM	6015.00	1,200.00	₹ 7,218,000.00
<b>6.2</b>	<b>Mineral Fibre Board False Ceiling</b>				
	Providing and fixing mineral fibre false ceiling tiles at all heights of size 595X595 mm of approved texture, design and pattern. The tiles should have humidity resistance (RH) of 99%, Light Reflectance ≥ 85%, Thermal Conductivity k= 0.052-0.057 w/m K, Fire performance as per (BS 476 pt - 6 & 7) in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33mm thick (galvanised @120 gsm) comprising of main T runners of 15x32 mm of length 3000mm, cross T of size 15x32 mm of length 600mm to form grid module of size 600x600mm suspended from ceiling using galvanised mild steel item (galvanised @80gsm) 50mm long 8mm outer diameter M-6 dash fasteners, 6mm diameter fully threaded hanger rod up to 1000mm length and L-shape level adjuster of size 85x25x2mm, spaced at 1200mm center to center along with 'T'. The system should rest on periphery walls/partitions with the help of GI perimeter wall angle of size 24x24x3000 mm made of 0.40mm thick sheet, to be fixed to the wall with the help of plastic rawl plug at 450mm centre to center & 40mm long drywall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights including the cost of making openings for light fittings, grills, diffusers, cutouts and required finishing suitably fixed, all complete The work shall be carried out as per specifications, drawings and as per	SQM	1242.00	2,368.00	₹ 2,941,056.00
<b>6.3</b>	<b>Metal False Ceiling</b>				
	Providing and fixing tiled false ceiling of specified materials of size 595x595mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @120grams/sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38mm made from 0.30mm thick (minimum) sheet, spaced at 1200mm center to center to form a grid of 1200x600mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30mm thick (minimum) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and wall angle of size 24x24x0.3mm and laying false ceiling tiles of approved texture in the grid including required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors, etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27x37x25x1.6mm fixed to ceiling with 12.5mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanised butterfly level clips of size 85x30x0.8mm and spaced at 1200mm center to center along with main T, bottom exposed width of 24mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-Charge.				

	<b>CIVIL &amp; INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC</b>				
	<b>CARPET AREA (sq.ft): 86,000 approx</b>				
<b>SR.NO.</b>	<b>ITEM DESCRIPTION</b>	<b>UNIT</b>	<b>TOTAL QTY.</b>	<b>RATE (Rs.)</b>	<b>AMOUNT (Rs.)</b>
	GI Metal Ceiling lay in perforated Tegular edge global white colour tile of size 595x595mm and 0.5mm thick with 8mm drop, made of GI sheet having galvanizing of 100 gms/sqm (both sides inclusive) and 20% perforation area with 1.8mm dia holes and having NRC (Noise Reduction Coefficient) of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation and backed with a blk glass fiber acoustical fleece. MAKE: Armstrong, hunter douglas or approved equivalent		598.00	2,379.00	₹ 1,422,642.00

<b>6.4</b>	<b>Baffle Ceiling</b>				
	Supply & Fixing of Aluminium Baffle with Plain infill panel of approved colour of 25mm X 75mm. Ceiling of thickness 0.6mm AL coil coated in approved Finish at centre-to-centre distance of 150mm between the baffle Panel in one direction with closed system of Plain Panel of 75mm Coil Coated approved colour, with bevel edge, panel length up to 6 mtr, Coil Coated on a Continuous Paint Line, Double baked and roll formed from enamelled corrosion resistance Aluminium alloy (Al. Mg). The Panels should form about each other with a narrow V groove. Panels shall be clipped to a baked enamelled aluminium Panel carrier of 0.95 mm thick in standard length of 5 mtr made of doubled enamelled aluminium alloy (Al. Mg) black with cut outs to hold the panels in a module of 75 mm closed at a distance as per design and site condition. All light fittings, AC grills or any other components that come on ceilings should be independently suspended from the slab. Small light fittings will have to be fixed with plywood backing. The item includes necessary scaffolding, marking, and providing cutouts for Electrical fixtures, Smoke detectors, Sprinklers, HVAC fixtures, etc., neat and finished, etc. complete. All works to be carried out to proper line, level, colour, finish etc. complete as per the drawing, manufacturer's specification, and direction of the Engineer. Aluminium panels shall be chromatised for maximum bond between metal and paint enamelled twice under high temperature, Exposed side with a full primer and finish coat on a Continuous Paint Line. The End caps shall be made up of aluminium of same thickness and shade to match with baffles.	SQM	228.00	7,500.00	₹ 1,710,000.00
	MAKE: Armstrong, hunter douglas or approved equivalent				
<b>6.5</b>	<b>Channel Woodenworks Ceiling</b>				
	<b>Woodworks Ceiling</b>				
	Providing and Fixing perforated panels of width 200mm, thickness of 15mm and length 2400 mm, made of a Moisture resistant fibre board substrate with a laminated facing as per the approved shade and a melamine balancing layer on the reverse side. The boards shall have a special perforation pattern where the reverse surface has a fluted perforation with consecutive 3mm wide groove followed by 13mm of visible pane. The edges of the panel shall be "tongue-and-grooved" to fix special clips for installation and seamless visual. The back of the perforated panel shall have sound absorbing non-woven acoustical fleece hot pressed to achieve NRC of 0.6. (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz). Rate shall be including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete added				
	SUSPENSION: The panel shall be downwardly installed with tongue and groove mechanism using Inside clip on 24 mm wide T - section flanges having rotary stitching on all T - sections i.e., the Main Runner, 1200 mm & 600 mm Cross Tees with a web height of 45mm, 35mm and 30mm respectively. The deflection loading of the system shall be 17.8 kg/m2 (as per standard installation layout) with deflection loading of 21.4kg/m. The end details of the main beam and cross tee shall be made of pre hardened steel and the cross tee is designed to provide double locking between "cross tee to cross tee" and "cross tee to main beam". All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T - Sections shall be made of hot dipped galvanized steel of 100 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending				

	<b>CIVIL &amp; INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC</b>				
	<b>CARPET AREA (sq.ft): 86,000 approx</b>				
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
	<b>INSTALLATION:</b> To comprise main runner spaced at 1200mm centre to centre securely fixed to the structural soffit using suspension system (specifications below) at 1200mm maximum centre. The First/Last suspension system at the end of each main runner should not be greater than 450mm from the adjacent wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm centre to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be wall angles of size 3000x20x20mm, secured to walls at 450 mm maximum centre to centre. The panel shall be downwardly installed with tongue and groove mechanism using inside clip on grid. Panel shall be butt jointed in the shorter side using industrial/wood glue and expansion joint of 15mm to be kept at every 7.2m. Expansion joint can be				
	<b>SUSPENSION SYSTEM</b> accessories consisting of M6 Anchor Fasteners with hanger hole, pre-Straightened Hanger wire of dia – 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs. Additionally, adjustable hook clips made of 0.7mm thick galvanized spring steel of dimension 100 x 20mm and 4 mm aquiline wire to be used for level adjustment during installation purpose in main runners.	SQM	171.00	4,450.00	₹ 760,950.00
<b>6.6</b>	<b>Acoustic Cloud Ceiling</b>				
	Readymade acoustical hanging & wall mounted panels made of glasswool in scrim finish of minimum size 1200x1200mm with embedded frames in desired different shape/design as shown in detail drawing issued by architect. Cloud ceiling to be installed as per manufacturer's instruction/manual in desired locations as specified in drawings. Rate shall be including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete added Make: Armstrong Soundscapes/Knauf	SQM	140.98	7,500.00	₹ 1,057,320.00
<b>6.7</b>	<b>Stretched Fabric Ceiling</b>				
	Providing and Fixing stretched fabric ceiling system, consisting of a flexible translucent PVC membrane and High Quality PVC Harpoon strengthening the periphery. PVC Membrane adhering to Stretch Ceiling Comprising Aluminum Channel, having 0.2-0.4mm thickness tensioned and secured within an extruded perimeter track. Translucent Pvc Membrane The system should offer seamless finish, integrated lighting capabilities having translucent backlit system, acoustic performance, and be demountable for access to the plenum space. Perimeter profile to be suitable for the required form as shown in detail drawings and to be finished in required shade and finish of laminate/veneer. The scope also includes the supply and installation of LED Bars along with compatible drivers. The LED bars shall feature high-lumen output with a double-track aluminum PCB, enhanced with copper plating for efficient heat dissipation. Offered in color temperatures of 3000K, 4000K, and 6500K, the fixtures will maintain a Color Rendering Index (CRI) greater than 80, ensuring quality illumination. The system will operate on a 24V DC input and be driven using either a constant voltage or constant current method, as required for optimal performance and reliability. Make - Barrisol or approved equivalent	SQM	10.00	11,000.00	₹ 110,000.00
<b>6.8</b>	<b>Open cell metal Ceiling</b>				
	Providing and installing metal cell ceiling system comprising modular open-cell panels made from lightweight aluminum or steel with powder-coated finish. Ceiling panels shall be precision-engineered in standard cell sizes (e.g., 50x50mm or 100x100mm) and mounted on T-grid suspension system and finished with perimeter trim on all sides. Panels must be demountable for access to services and allow for integration with lighting, HVAC, and fire safety systems. The system shall ensure uniformity, acoustic performance (optional acoustic infill), and compliance with fire and safety standards. Finish to be pre-approved from manufacturer's standard range (e.g., RAL 9010 white). Installation to be carried out per manufacturer's guidelines, ensuring levelness, alignment, and full support.. All work to be completed to the satisfaction of the architect/engineer. Ceiling rate shall be inclusive of making cutouts and fixing marine plywood above ceiling wherever required for fixing light fittings, smoke detectors, sprinklers, speakers, ac grills etc. Note: Submit samples, product data, and shop drawings for approval before work commencement	SQM	439.00	3,000.00	₹ 1,317,000.00

	<b>CIVIL &amp; INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC</b>				
	<b>CARPET AREA (sq.ft): 86,000 approx</b>				
<b>SR.NO.</b>	<b>ITEM DESCRIPTION</b>	<b>UNIT</b>	<b>TOTAL QTY.</b>	<b>RATE (Rs.)</b>	<b>AMOUNT (Rs.)</b>
<b>6.9</b>	<b>Perforated Metal Ceiling Tiles</b>				
	Providing and fixing perforated metal ceiling tiles of size 600mm x 600mm, made from 0.5 mm thick galvanized steel, factory-finished with durable powder-coated Global White (RAL 9010) and anti-microbial Bioguard coating, including circle perforation pattern of 15 mm- 30mm dia with approx. 20–25% open area and acoustic non-woven fleece backing achieving NRC ≥ 0.70. Tiles shall be installed on a concealed hot-dip galvanized steel Clip-In suspension system with proper hangers, edge trims, perimeter profiles, and necessary accessories to allow full downward demountability. Rate shall include all materials, labour, scaffolding, transportation, wastage, installation, and taxes complete as per drawings and instructions of the architect/consultant. Make: Armstrong, Hunter Douglas or approved equivalent		76.00	5,000.00	₹ 380,000.00
	<b>TOTAL (FALSE CEILING)</b>		<b>8919.98</b>		<b>₹ 16,916,968.00</b>
<b>7</b>	<b>PAINTING &amp; FINISHING WORKS</b>				
<b>7.1</b>	<b>Wall POP punning</b>				
	Providing and applying Plaster of Paris punning in average 6 mm thickness on walls, ceiling, beams and columns to bring the surface in plumb line and level including making the surface smooth, providing required grooves on top of skirting etc., complete as per directions of the EIC/Architect. (Note:- Rate to include cost of chipping and scrapping neeru or any other finish on the existing plastered surface/new plaster).	SQM	1924.79	302.00	₹ 581,287
<b>7.2</b>	<b>Synthetic Enamel Paint</b>				
	Providing and applying two or more coats synthetic enamel paint of approved make of required colour on existing or new wood/steel work to give an even shade. Rate includes surface preparation, one coat of primer and scaffolding etc., complete as per the direction of the EIC/Architect.	SQM	150.00	260.00	₹ 39,000.00
<b>7.3</b>	<b>Texture Paint</b>				
	Finishing walls with textured paint of required shade. New work (two or more coats applied @ 3.84 kg ltr/ 10 sqm) over and including priming coat of primer and wall pop punning applied @ 2.20kg /10 sqm.	SQM	292.00	1,500.00	₹ 438,000.00
<b>7.3</b>	<b>Duco Paint</b>				
	Duco paint shall be applied on interior wooden, MDF, wooden mouldings or metal surfaces as per approved design and finish. Surface preparation shall include sanding, filling, and application of primer to ensure a smooth base. Minimum three coats of Duco paint (nitrocellulose-based) shall be spray-applied in a dust-free environment for uniform finish. . Shades and gloss level shall be as per architect's approval. All application shall conform to manufacturer's specifications. Final finish shall be smooth, even-toned, and free from brush marks, bubbles, or undulations. Touch-ups, if required, shall be seamless. Make - Asian Paints, ICI, or approved	SQM	50.00	1,500.00	₹ 75,000.00
<b>7.4</b>	<b>Velvett / Royal Emulsion paint</b>				
	Providing and applying two or more coats of Velvett / Royal Emulsion paint of approved colour on wall surfaces with Birla Wall putty to obtain level and smooth surface followed by a coat of primer and wall pop punning as per manufacturer's specification. The first coat shall be brush applied and the final coat shall be roller finish. The rate shall include surface preparation & scaffolding including Birla Wall putty and primer etc., complete as per the direction of the EIC/Architect.	SQM	1592.00	429.00	₹ 682,968.00
<b>7.5</b>	<b>Wall paper</b>				
	Providing and fixing premium quality vinyl wall paper of minimum 300 micron thick of approved quality, pattern and shade with necessary adhesive etc., complete as per architectural drawing and direction of the EIC/Architect. Basic Rate Rs. 3000/- per sqm. Approved makes: Muraspecs, D'decor, Vescom, Asian	SQM	1334.00	3,010.00	₹ 4,015,340.00

	<b>CIVIL &amp; INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC</b>				
	<b>CARPET AREA (sq.ft): 86,000 approx</b>				
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
7.6	<b>Acoustical Fabric Paneling</b>				
	<p>Providing and Fixing of Acoustical Wall Panel with square edges made of fibre glass substrate 25mm thick, wrapped on the front side with an acoustically transparent fabric as per the approved shade. The panel shall be classified for Fire Class A. The Acoustical Wall Panel shall be of sizes 600x600mm (Nominal) or 600x1200mm (Nominal) and shall achieve an NRC of 0.85 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) with 50mm airgap to be fixed to wall on a framework of wooden battens or by using construction adhesives. The fibre glass substrate shall have a recycle content of 85%.</p> <p>INSTALLATION: An appropriate vapour barrier shall be applied/installed on the vertical surface before the installation to properly seal against entry of any moisture. Vapour barrier (by others) shall be installed as per Manufacturer's recommendation. Install wooden batten grid (provided by others) of section 50x50mm or as approved by the Architect on the solid wall/partition to provide level and plumb surface. The Impalers shall be fixed to the battens using self-tapping screws, 3 nos. in case of 600x600mm and 4 nos. in case of 600x1200mm. Silica based construction adhesive (by others) to be dabbed on to the projecting elements (spikes) of the Impalers. Wall Panels shall be pierced through the spikes of the Impalers ensuring the line and level of the panels are maintained. Make: Armstrong or approved equivalent.</p>	SQM	40.00	5,000.00	₹ 200,000.00
	<b>TOTAL (PAINTING &amp; FINISHING WORKS)</b>				₹ 6,031,594.88

<b>8</b>	<b>PARTITION WORK</b>				
8.1	<b>Full height Glass Partition.</b>				
	<p>Supplying and installing Single Glazed Glass partition of 12mm thick Toughened Glass using 45-54 mm wide Aluminium Frames upto a maximum height of 3m or as per the drawings. The Fixed glass shall be fixed using Profiles at Top &amp; Bottom and at sides. The profile size shall be 45-54 mm Width x 25 mm Height and shall be fixed on to the floor/wall/ ceiling (i.e bottom /top /sides) as per the architect's design. H Junction profile shall be used at all Glass to Glass vertical joints, 90 Degree L Junction Profiles and T Junction profiles necessary as per design. In case of Glass overall panel, Overpanel Profiles shall be used. In case of Open glass edges End Profile shall be used. Profiles shall be suitable for Glass thickness of 12 mm. The Profile shall be Aluminium matt natural anodized, the Profile Manufacturer shall supply all the necessary clips, seals and installing accessories for the system. All Profiles shall have a minimum thickness of 2 mm excluding 20 Micron thick anodizing complete as specified by the Architect. The item is inclusive of profiles, glass and all</p>				
	The frame work required to support the glazing system above the false ceiling is also required to be made as specified or as required for installing the glazing system. The same would be measured and paid seperately under the respective items.				
	Mode of measurement. In sqm. of visible finished area.				
	Makes:- Profile - Dorma / Optima or approved equivalent				
	Makes:- Glass, Saint Gobain or Asahi or approved equivalent				
	Glass partition	SQM	279.00	10,000.00	₹ 2,790,000.00
8.2	<b>Mirror</b>				
	<p>Providing and fixing 6 mm thick mirror of approved make of required size on 12mm thick BWP (710) grade marine plywood backing. All edges of the glass are to be machine polished and finished. The glass shall be fixed to the plywood backing using approved double sided acrylic foam tape of required size as per the manufacturers specifications, architectural drawings and as directed by the EIC/Architect. (Item includes Ply backing and support). Rate shall be inclusive of making provision for LED cove light</p>	SQM	111.00	4,000.00	₹ 444,000.00

	<b>CIVIL &amp; INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC</b>				
	<b>CARPET AREA (sq.ft): 86,000 approx</b>				
<b>SR.NO.</b>	<b>ITEM DESCRIPTION</b>	<b>UNIT</b>	<b>TOTAL QTY.</b>	<b>RATE (Rs.)</b>	<b>AMOUNT (Rs.)</b>
<b>8.3</b>	<b>Internal partitions with 50x50mm framework + 12mm ply skinning on both sides</b>				
	Providing and fixing in position <b>internal opaque partitions full height upto the false ceiling but the frame work will be upto the ceiling. (Please Note: Partition only upto ceiling will be measured and paid for.)</b> a) Vertical & horizontal Frame work to be of 50 x 50 x 1.60 mm thick extruded aluminum section weighing not less than 0.836 kg/rmt with maximum distance of 450 mm c/c both ways or as directed. Aluminum extruded sections: Jindal, Hindalco or approved equivalent	SQM	1869.00	4,000.00	₹ 7,476,000.00
	b) 12 mm thk exterior grade MR Grade ply to be fixed over the frame work on both sides. (But measurements of one side will be taken and paid for) Ply: Archid Ply, Duro, Century, Green.				
	item to be executed as above finished with:				
<b>8.3.1</b>	8 mm thk gypsum board	SQM	467.00	1,125.00	₹ 525,375.00
<b>8.3.2</b>	12.5 mm thk gypsum board	SQM	374.00	632.00	₹ 236,368.00
<b>8.3.3</b>	1mm thk non metallic decorative laminate with plain/wood grain finish of approved design & shade	SQM	187.00	1,825.00	₹ 341,275.00
<b>8.3.4</b>	6 mm thk coloured toughened lacquered glass (back painted)	SQM	280.00	6,609.00	₹ 1,850,520.00
<b>8.3.5</b>	18mm thk Bison board	SQM	100.00	1,431.00	₹ 143,100.00
<b>8.3.6</b>	Veneer with mellamine for panelling basic rate - rs. 2500/sq.m	SQM	935.00	3,540.00	₹ 3,309,900.00
<b>8.4</b>	<b>Panelling with 25x50mm framework + 12mm ply skinning</b>				
	Providing and fixing at Site Paneling to column / wall/ partitions; made of aluminium frame 25 mm x 50mm 16 gauge at 600mm centre to centre bothways with necessary packing of Teak wood members to achieve the size of column/ wall. on aluminium frame fix 12mm MR Ply finish/finishes as mentioned below as approved by EIC/Architect. The cost shall include applying 2 or more coats of Anti-termite paint to internal surfaces. The Rate includes all materials, hardware, labours, polishing, making services/ electrical provisions/ access with necessary doors etc. as directed by Engineer in-charge/ Architect, complete.	SQM	14272.00	2,500.00	₹ 35,680,000.00
	item to be executed as above finished with:				
<b>8.4.1</b>	8 mm thk gypsum board	SQM	2854.00	1,125.00	₹ 3,210,750.00
<b>8.4.2</b>	12.5 mm thk gypsum board	SQM	714.00	632.00	₹ 451,248.00
<b>8.4.3</b>	1mm thk non metallic decorative laminate with plain/wood grain finish of approved design & shade	SQM	2854.00	1,825.00	₹ 5,208,550.00
<b>8.4.4</b>	6 mm thk coloured toughened lacquered glass (back painted)	SQM	143.00	6,609.00	₹ 945,087.00
<b>8.4.5</b>	18mm thk Bison board	SQM	100.00	1,431.00	₹ 143,100.00
<b>8.4.6</b>	Veneer with mellamine polish for panelling basic rate - rs. 2500/sq.m	SQM	285.00	3,540.00	₹ 1,008,900.00
<b>8.5</b>	<b>SKINNING /PANELLING /BOXING.</b>				
	Providing and fixing Plywood, Laminate, Gypsum Board, Calcium Silicate Board, S.S. Cladding, Cement Bonded Particle Board, Solid Surface, ACP, 6mm thick coloured lacquered Glass of approved quality & make for partitions, facias, skirtings, wall paneling, column paneling, ceiling paneling & soffit etc., of required width and size as per drawing including cost of making openings for switches, AC facias etc. The rate includes cost of adhesives like fevicol, nails, screws and other consumables etc, to complete the work as per instructions of EIC/Architect.				
<b>8.5.1</b>	6 mm thk BWP grade (IS710) flexible plywood	SQM	150.00	1,758.00	₹ 263,700.00
<b>8.5.3</b>	18/19 mm thk BWP grade (IS710) marine plywood	SQM	285.00	2,461.00	₹ 701,385.00
<b>8.5.4</b>	1 mm thk matt SS corner guards of 304 grade	RM	200.00	477.00	₹ 95,400.00
<b>8.5.5</b>	Providing and fixing Bottom Line Aluminum Hat Profile of 10mm thickness as shown in the dwg.	RM	350.00	393.00	₹ 137,550.00
<b>8.5.6</b>	Wooden Moulding (25x12)	RMT	50.00	1,145.00	₹ 57,250.00
<b>8.5.7</b>	Wooden Moulding (50x50)	RMT	50.00	1,345.00	₹ 67,250.00
	Solid surface of 6mm thickness -Make Dupont or Approved Equivalent- Basic Rate - Rs 10000/SQM.	SQM	61.00	12,000.00	₹ 732,000.00



	<b>CIVIL &amp; INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC</b>				
	<b>CARPET AREA (sq.ft): 86,000 approx</b>				
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
8.6	<b>Fluted Panel</b>				
	Providing and fixing fluted panels of medium density fibreboard (HMR Grade) as base material and finished with textured PVC membrane top layer of length 2750mm (9ft), width 120mm (4.75in) and of 18mm thickness. Panels to be fixed on aluminum framework paneling with 6/8mm thk ply and to be finished above skirting. Rate shall be inclusive of all necessary anodized aluminum hat profile/corner guard as per approved design. (Basic rate- Rs. 3100/- sq.m)	SQM	714.00	3,300.00	₹ 2,356,200.00
	<b>TOTAL (PARTITION WORK)</b>				₹ 68,174,908.00
9	<b>MISCELLANEOUS</b>				
9.1	<b>Soffit- Veneer Finish.</b>	SQM	602.00	5,000.00	₹ 3,010,000.00
	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				
	including fixing of 4mm thk approved shade / finish veneer with 6mm thk BWP ply finished with primer and 3 coats of melamine polish, 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 square or curved shapes of ply and veneer with required coats of melamine polish suitable for veneer, 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 EIC/Architect but including the cost of 3 coats of melamine polish : Rate shall be inclusive of vertical veneer with ply band of height 330mm and cove.				
9.2	<b>Pelmet</b>				
	Providing and fixing in position pelmet of size 150 mm x 250 mm made of 12mm thick BWP marine grade plywood with approved laminate and 2 mm thick matching PVC edge banding including required framing and support from walls/slabs/beams. Rate shall be inclusive of required framing to support pelmet. Item to be completed in all respects with necessary supports from RCC slab as per drawings & instruction from EIC/Architect.				
	1mm thk non metallic decorative laminate with plain/wood grain finish of approved design	RMT	491.00	2,000.00	₹ 982,000.00
9.3	<b>Aluminum Skirtings.</b>				
	Providing and fixing modular aluminium anodized skirtings - 1.5 mm thickness (minimum) of approved profile suitable for partitions, panelling and walls. The profiles shall be made from finest quality aluminium extrusions and anodized minimum 40 microns for high durability and corrosion resistance including all necessary fittings and accessories for installation as per the directions of the EIC/Architect. Approved makes- Bottomline, Jebb, Falanx)				
9.3.1	Height 75 MM	RMT	650.00	396.00	₹ 257,400.00
9.4	<b>Frosted Film</b>				
	Providing & fixing 80 micron (minimum) thick non reflective, matte, frosted, scratch resistant, high performance resin coated polyester film with required frosting pattern on the glass surface complete as per direction of EIC/Architect. (Payment shall be made for the finished area of the film actually provided. Rate shall be inclusive of making openings up to 0.10 sqm area each).	SQM	185.00	2,100.00	₹ 388,500.00

	<b>CIVIL &amp; INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC</b>				
	<b>CARPET AREA (sq.ft): 86,000 approx</b>				
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
<b>9.5</b>	<b>Roller Blinds.</b>				
	The Roller blind system consists of 38mm OD extruded out of Aluminium alloy 6063 T6 with silver anodized to provide an everlasting finish and luster, the rotary unit shall be 36mm in OD incorporating a clutch mechanism composed of low – flexing braided polyester cord with nylon core, Control Ball chain shall be composed of braided nylon cord (2mm dia) with high engineering grade plastic beads of 4.5mm diameter mounted co-axially on the cord with a pitch of 6.2mm (C-T-C) Bottom rail should be powder coated Aluminium flat bottom rail of 290 gm to finish it from the ends it should have rail end caps. The clutch will be at the tube. The return end cap bracket shall incorporate snap spring design to facilitate easy installation and removal for maintenance activities. The bracket shall be finished with a white color on each side providing an aesthetic finish. It should handle up to 5 Kgs of material. The clutch should mount flush to the face of the bracket which minimize the light gap between the shade and the window frame.	SQM	491.00	1,545.00	₹ 758,595.00
	Seclusion fabric made up of 100% Polyester with acrylic coating of thickness 0.32 – 0.5mm (ISO 2286-3) and weighing 270 - 290 gsm per sqm (ISO 2286-2) with openness factor of 0% .Shrinkage% (Warp <0.5% Warp < 0.5%) As per ISO 4674. Colour fastness Grade 8 ISO105 B02:2014 > 5-6 AATCC TM 16.3-2014; Option 3; Xenon Arc lamp. C Make - Vista or approved equivalent				
<b>9.6</b>	<b>Vertical Blinds</b>				
	Providing & fixing vertical blinds manufactured from dust & stain repellant, blended synthetic fabric strips of 100mm width of approved design & shade with head rail, reduction gear box, tilt rod, tilter chain, runners, spacers, installation brackets, braided high strength polyester fibre cord & concealed counter weights & chain etc., complete as per manufacturer's specifications. (Payment shall be made for the finished area. Height of the curtain shall be taken in open position from the top of the headrail to the bottom of the curtain). Make - 'Vista Levolor', 'Mac', 'Aerolux' or approved equivalent make	SQM	98.00	1,112.00	₹ 108,976.00
<b>9.7</b>	<b>Zebra Blinds</b>				
	Providing and fixing Twist Shades blinds, to the following specifications: For ease and precision, opt for the clutch-operated continuous cord loop that works on the principle of a pulley, rotating a clutch to raise or lower the shade. The END PLUG shall be molded of plastic with a steel location pin. The plug shall be inserted into the tube end. (Opposite to the Drive Unit) for ease of installation. The SUPPORT BRACKETS shall be of coated steel & provided with covers and used in right hand or left hand positions differentiated by the acceptance of the of the rectangular drive unit support or the round idler plug pin. Can be installed a) On Face b) Ceiling Mount c) On Frame d) in Recess The Bracket should be protruding outside maximum of 80mm The FLAT EXTRUDED VALANCE shall be powder coated grey finish. Selected fabric will be wrapped on the valance for colour co-ordination The ROLLER TUBE shall be of extruded aluminum with 40mm / 50mm diameter & skin thickness of 1mm and shall incorporate a keyway integral with the tube to accommodate the spline. The BOTTOM RAIL shall be a Flat Bottomrail of Aluminium Extruded as a stiffening element inserted into a bottom rod pocket. The bottom rail will be wrapped with fabric selected for colour co-ordination. The FABRIC shall be as per selection and shall be sized according to site requirement (subject to maximum width limitation of individual fabric types). A bottom pocket shall be created in the fabric to incorporate the bottom rail. Make Hunter Douglas or Equivalent.	SQM	200.00	3,300.00	₹ 660,000.00
<b>9.8</b>	<b>Graphics</b>				
	Supply & Installation of 0.08-0.1mm Non-PVC wall décor with adhesive where in wrap will be used as a base material for printing and to be covered with laminate film to protect the print from fading, which will come in a matte finish with approved artwork digitally, bubble free installation to be done on a smooth, dust free putty surface that has a coat of oil-based primer. Certificate to image license and warranty for a period of 5 years to be submitted along with invoice. Cost shall be including purchasing/designing stock images and graphics and artworks design to be approved by architect & design.	SQM	100.00	2,500.00	₹ 250,000.00



CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC					
CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
9.9	<b>Antistatic Vinyl Flooring</b>				
	Provide and install antistatic flooring system consisting of antistatic vinyl, materials designed to dissipate static electricity. Flooring shall have a surface resistance of 10 <sup>6</sup> to 10 <sup>9</sup> ohms, suitable for use in electronic assembly areas, data centers, laboratories, and clean rooms. Material shall be minimum 3 mm thick, resistant to chemicals, wear, and stains, with non-slip surface and anti-bacterial properties. Flooring to be installed over a smooth, dry, and properly prepared subfloor using manufacturer-approved self levelling conductive adhesive. Copper grounding strips and electrical grounding connections shall be included as required to ensure proper functionality. Finish and color to be selected from manufacturer's standard range and approved by the architect. Installation shall be carried out in accordance with manufacturer's specifications and industry best practices. Submit product data, test certifications, and samples for approval prior to installation. Completed flooring shall meet all relevant safety, ESD, and performance standards.	SQM	276.00	2,250.00	₹ 621,000.00
9.10	<b>Fire Exit Maps</b>				
	Size max 18" X 12". ( Sample Material to be approved from Architect )in foam board Basic Rate Rs 2000/No.	NOS	15.00	2,180.00	₹ 32,700.00
9.11	<b>Glow Sign Boards</b>				
	Providing and fixing LED glow fire exit sign boards as per details Size: 12 inch x 6 inch, Decorative 8 mm clear transparent acrylic with LED Light. Basic Rate Rs 1100/no.	NOS	40.00	1,250.00	₹ 50,000.00
9.12	<b>Push pull door signage</b>				
	SS Finish push and pull plate (push/pull will be continued as 1 pair)	NOS	40.00	450.00	₹ 18,000.00
9.13	<b>Veneer Screen battens</b>				
	Providing and fixing in position <b>screen in Veneer finish full height upto the false ceiling but the frame work will be upto the ceiling. (Please Note: Partition only upto ceiling will be measured and paid for.)</b> a) Vertical & horizontal Frame work to be of 50 x 50 x 1.60 mm thick aluminum section weighing not less than 0.836 kg/rmt with maximum distance of 150 mm c/c vertically or as directed.Covered with 9 mm MR grade ply and 4mm Veneer with Mellamine polish from all 4 sides Aluminum extruded sections: Jindal, Hindalco or approved equivalent	SQM	40.00	6,000.00	₹ 240,000.00
	b) 9 mm thk exterior grade MR Grade ply to be fixed over the frame work on four sides. (But measurements of one side will be taken and paid for) Ply: Archid Ply, Duro, Century, Green.Basic Rate of Veneer - Rs 2500/sqm				
9.14	<b>Decorative Veneer Screen</b>				
	Providing and fixing in position <b>screen in Veneer finish full height upto the false ceiling but the frame work will be upto the ceiling. (Please Note: Partition only upto ceiling will be measured and paid for.)</b> a) Vertical & horizontal Frame work to be of 50 x 50 x 1.60 mm thick aluminum section weighing not less than 0.836 kg/rmt with maximum distance of 600 mm c/c both ways or as directed.Covered with 9 mm MR grade ply and 4mm Veneer with Mellamine polish from all 4 sides with desired laser cut/CNC design Pattern to be created Aluminum extruded sections: Jindal, Hindalco or approved equivalent	SQM	35.00	8,000.00	₹ 280,000.00
	b) 9 mm thk exterior grade MR Grade ply to be fixed over the frame work on four sides. (But measurements of one side will be taken and paid for) Ply: Archid Ply, Duro, Century, Green.Basic Rate of Veneer - Rs 2500/sqm				
	<b>TOTAL (MISCELLANEOUS)</b>				₹ 7,657,171.00

CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC					
CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
10	LOOSE FURNITURE - CARPENTRY				
10.1	Storage Unit - 450mm deep. (Laminate finish)				
	Providing and fixing of storage units as per drawings and as per the site requirements. Unit to be made of 18 mm thick BWP marine grade plywood for top, bottom, sides, shelves and 9 mm thick plywood for back, all exposed edges of the plywood should be covered with lipping patti. Rate shall be inclusive of open shelves as per design with provision for profile light.	SQM	300.00	12,000.00	₹ 3,600,000.00
	All exposed surfaces are to be finished with 1 mm thick laminate. All internal surfaces to be finished with 1 mm thk laminate including shelves. Shutters to be made of 12 mm thick plywood frame and 1mm thick laminate as per drawing detail. Laminate finished shutters to have finger groove opening as specified in the detail drawing. Item includes all types of hardwares of approved make such as cupboard locks, magnetic push mechanism, S.S. hinges, M.S. 19x19 mm powder coated hollow pipe for support of approved make and size, profile handles, etc., complete as per the directions of the EIC/ Architect. Rates includes hardwares which are mentioned below.				
	Hinge: Slow Motion HSM1M1-SS of EBCO or approved equivalent				
	Wardrobe lock: 3 point (22/32mm) P-WL-1-32-25 of (EBCO) or approved equivalent.				
	Magnetic push mechanism				
	J-profile handles				
10.2	Storage Unit - 450mm deep. (veneer finish)				
	Providing and fixing of storage units as per drawings and as per the site requirements. Unit to be made of 18 mm thick BWP marine grade plywood for top, bottom, sides, shelves and 9 mm thick plywood for back, all exposed edges of the plywood should be covered with lipping patti. Rate shall be inclusive of open shelves as per design with provision for profile light.	SQM	85.00	15,000.00	₹ 1,275,000.00
	All exposed surfaces are to be finished with 4 mm thick veneer with melamine polish. All internal surfaces to be finished with 1 mm thk laminate including shelves. Shutters to be made of 12 mm thick plywood frame and 4mm thick veneer with melamine polish as per drawing detail. Laminate finished shutters to have finger groove opening as specified in the detail drawing. Item includes all types of hardwares of approved make such as cupboard locks, magnetic push mechanism, S.S. hinges, M.S. 19x19 mm powder coated hollow pipe for support of approved make and size, profile handles, etc., complete as per the directions of the EIC/ Architect. Basic Rate of Veneer- Rs 2500/sqm Rates includes hardwares which are mentioned below.				
	Hinge: Slow Motion HSM1M1-SS of EBCO or approved equivalent				
	Wardrobe lock: 3 point (22/32mm) P-WL-1-32-25 of (EBCO) or approved equivalent.				
	Magnetic push mechanism				
	J-profile handles				
10.3	Storage Unit - 450mm deep. (lacquered glass shutters)				
	Providing and fixing of storage units as per drawings and as per the site requirements. Unit to be made of 18 mm thick BWP marine grade plywood for top, bottom, sides, shelves and 9 mm thick plywood for back, all exposed edges of the plywood should be covered with lipping patti. Rate shall be inclusive of open shelves as per design with provision for profile light.	SQM	300.00	13,500.00	₹ 4,050,000.00
	All exposed surfaces are to be finished with 1mm thk laminate on all sides. All internal surfaces to be finished with 1 mm thk laminate including shelves. Shutters to be made of 12 mm thick plywood frame and 4mm thick toughened lacquered glass as per drawing detail. Laminate finished shutters to have finger groove opening as specified in the detail drawing. Item includes all types of hardwares of approved make such as cupboard locks, magnetic push mechanism, S.S. hinges, M.S. 19x19 mm powder coated hollow pipe for support of approved make and size, profile handles, etc., complete as per the directions of the EIC/ Architect. Basic Rate of Veneer- Rs 2500/sqm Rates includes hardwares which are mentioned below.				
	Hinge: Slow Motion HSM1M1-SS of EBCO or approved equivalent				
	Wardrobe lock: 3 point (22/32mm) P-WL-1-32-25 of (EBCO) or approved equivalent.				
	Magnetic push mechanism				
	J-profile handles				

**CIVIL & INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

CARPET AREA (sq.ft): 86,000 approx					
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
10.4	<b>Console unit in meeting rooms- (Height 750 mm)</b>				
	Providing and fixing storage units as per drawings and as per the site requirements. The sides, vertical dividers, top and bottom of the unit are to be made of 19 mm thick BWP grade marine plywood (710). Top of the unit to be finished with approved 18mm thk Marble mirror polished marble with bevelled edges over 19 mm thick BWP marine grade plywood. The back side of unit shall be 9 mm thick BWP marine grade plywood. The sides of the storage unit to be finished with 1mm thk laminate on both sides. Shutters are to be made of 19 mm thick BWP marine grade plywood, 4 mm thick toughened back painted glass including key holes. 75mm high skirting to be provided all around. All internal surfaces are to be finished with 1 mm thick laminate of approved make and shade. The item also includes hinges, locks, magnetic push mechanism, ball catchers, necessary cut-out etc., for services complete as per the directions of EIC/ Architect. Basic rate for Marble: Rs.5000/- Per Sqmt. Rates includes hardwares which are mentioned below.				
	Hinge: Slow Motion HSM1M1-SS of EBCO or approved equivalent				
	Lock: 22/32mm P-WL-1-32-25 of (EBCO) or approved equivalent.				
	Tower Bolt: (SS 304) Round 250mm of (KICH) or approved equivalent				
	Magnetic push mechanism				
10.4.1	<b>SIZE 450 Deep</b>	SQM	50.00	18,000.00	₹ 900,000.00
10.5	<b>Console unit in meeting rooms- (Height 750 mm) - veneer finish</b>				
	Providing and fixing storage units as per drawings and as per the site requirements. The sides, vertical dividers, top and bottom of the unit are to be made of 19 mm thick BWP grade marine plywood (710). Top of the unit to be finished with approved 18mm thk Marble mirror polished marble with bevelled edges over 19 mm thick BWP marine grade plywood. The back side of unit shall be 9 mm thick BWP marine grade plywood. The sides of the storage unit to be finished with 4mm thk veneer with melamine polish on both sides. Shutters are to be made of 19 mm thick BWP marine grade plywood, 4mm thk veneer in melamine polish including key holes. 75mm high skirting to be provided all around. All internal surfaces are to be finished with 1 mm thick laminate of approved make and shade. The item also includes hinges, locks, magnetic push mechanism, ball catchers, necessary cut-out etc., for services complete as per the directions of EIC/ Architect. Basic rate for Marble: Rs.5000/- Per Sqmt. Basic Rate of Veneer - Rs 2500/sqm. Rates includes hardwares which are mentioned below.				
	Hinge: Slow Motion HSM1M1-SS of EBCO or approved equivalent				
	Lock: 22/32mm P-WL-1-32-25 of (EBCO) or approved equivalent.				
	Tower Bolt: (SS 304) Round 250mm of (KICH) or approved equivalent				
	Magnetic push mechanism				
10.5.1	<b>SIZE 450 Deep</b>	SQM	25.00	22,000.00	₹ 550,000.00
10.6	<b>Over Head Storage (Depth 350 mm)</b>				
	Providing & fixing in position Over Head storage units of 350mm depth. Sides, top, bottom, shelves, vertical dividers are to be made of 19 mm thk BWP Marine Grade plywood. External and internal surfaces of the storage are to be finished with 1mm thick non metallic decorative laminate with plain/ wood grain finish of approved design. Shelves and vertical dividers are to be finished with 1.0 mm thick approved laminate on both the sides. Shelves are to be suitably supported on S.S.buttons. 9mm thick plywood finished with 1.0mm thick laminate on internal surface is to be provided as back of the unit.Rate shall be inclusive of open shelves as per design with provision for profile light. Shutters - Made of 19 mm thick BWP Marine Grade plywood finished with 1 mm thick laminate on external & internal surfaces. Second Class teak wood lippings are to be provided on all exposed plywood edge surfaces as per the drawing / instructions and to be finished with three or more coats of melamine polish. Unless otherwise specified in the drawing, the thickness of Teak wood lipping should be 6mm (min). All exposed woodwork to be finished with three or more coats of melamine polish. The entire item is to be completed in totality with necessary hinges, ball catchers, handles, hardware, consumables all etc, complete as per the directions of the EIC/Architect.	SQM	50.00	10,000.00	₹ 500,000.00
	Hinge: Slow Motion HSM1M1-SS of EBCO or approved equivalent				
	Lock: 22/25mm P-WL-1-25-22 of (EBCO) or approved equivalent.				
	Tower Bolt : S.S.304 Round 75 MM (KICH) or approved equivalent				

	<b>CIVIL &amp; INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC</b>				
	<b>CARPET AREA (sq.ft): 86,000 approx</b>				
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
10.7	<b>Pantry-Platform Shutter</b>				
	Providing & fixing shutters to the pantry counter. The frame to be provided on top and sides are to be made of 38x50 mm Second Class Teak wood finished with melamine polish. Shutters to be made of 19mm thk BWP Grade Marine Plywood (width of each shutter not exceeding 450mm) finished with 1mm thick non metallic decorative laminate with plain/wood grain finish of approved design on both sides. Horizontal shelves are to be made of 19mm thk Plywood finished with 1mm thick approved laminate on both sides duly supported on S.S. shelf button. 6mm thick Second Class Teakwood lippings are to be provided on all exposed plywood edges finished with melamine polish. The entire item is to be completed in totality with necessary hardware, consumables etc., as per the directions of the EIC/Architect.	SQM	75.00	8,000.00	₹ 600,000.00
	Hinge: Slow Motion HSM1M1-SS of EBCO or approved equivalent				
	Lock: 22/25mm P-WL-1-25-22 of (EBCO) or approved equivalent.				
	Tower bolt				
	Handles				
10.8	<b>Meeting Room Table with Veneer Top</b>				
	Providing and fixing in position Meeting Room Table of various sizes as per the approved design and profile given in the detailed drawing consisting of : Table top - 25mm thick to be made of 19mm thick BWP marine grade plywood covered with approved 4mm thk veneer on top with PU polish and 1mm thick laminate below the table top. Second Class teak wood edges are to be provided on all exposed plywood edge surfaces as per the drawing / instructions and to be finished with three or more coats of melamine polish. Unless otherwise specified in the drawing, the thickness of Teak wood lipping should be 25mm (min). The under structure of the table is to be made of powder coated M.S. legs of approved section and profile, provision to be made for 2 nos. soft closing dual access flap (to be paid separately) to be provided for access to power supply and data cables. Neccessary cutout to be provided for power track etc. The entire item is to be completed in totality as per the architectural drawing and directions of the EIC/Architect.				
10.8.1	<b>Size 1500x4000x750mm</b>	NOS	4.00	85,000.00	₹ 340,000.00
10.8.2	<b>Size 1200x2500x750mm</b>	NOS	2.00	59,971.00	₹ 119,942.00
10.9	<b>Reception Table</b>				
	Providing and placing in position Reception table of required shape and size. The entire structure to be made of 19mm thk BWP marine plywood. All external visible surfaces to be finished in 6 mm thk. corian and all internal surfaces to be finished with 1mm thk. non-metallic decorative laminate with plain/wood grain finish of approved design and shade. The table top to be finished in corian with reverse waterfall edge. The table to have a fully extendable drawer pedestal (2no.) finished with of approved colour and shade as per details. Drawer to be complete with hardware installed as mm thk. non-metallic decorative laminate with plain/wood grain finish of approved design and shade. Drawer to be complete with hardware installed as directed to consist of the following: multi-purpose locks as specified, 100mm SS handles, keyboard trays, space for CPU unit etc complete as per details and Architect/EIC approval. Provision for cove light to be made as specified in the drawing. (cove light shall be paid separately). The entire table is to be completed as per the architectural drawing and as per directions of EIC/ Architect.				
	Multi purpose locks				
	Soft Closing ball Bearing Drawer Slides STDS50-35SS-SC (EBCO) or approved equivalent				
	Cable Organiser-ZINC (DIA60mm) CO60ZN1 (EBCO) or approved equivalent				
	SS handles				
	Keyboard tray				
	<b>Size 2400x1050x750mm</b>	NOS	4.00	220,000.00	₹ 880,000.00

	<b>CIVIL &amp; INTERIOR WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC</b>				
	<b>CARPET AREA (sq.ft): 86,000 approx</b>				
SR.NO.	ITEM DESCRIPTION	UNIT	TOTAL QTY.	RATE (Rs.)	AMOUNT (Rs.)
10.10	<b>Trap door</b>				
	Providing and fixing trap door made of aluminum powder coated inner/outer frames/corner fittings finished with gypsum board liner, sealing strips between inner and outer frames including concealed hinges, snap touch latch etc., complete. The entire item is to be completed in totality as per manufacture's specifications and directions of the EIC/Architect.				
10.10.1	Size 450 x 450 MM	NOS	10.00	3,099.00	₹ 30,990.00
10.10.2	Size 600 x 600 MM	NOS	10.00	3,695.00	₹ 36,950.00
10.10.3	Size 600 x 1200 MM	NOS	10.00	7,747.00	₹ 77,470.00
10.11	<b>Conference Table- Size 18310MM X 1016MM X 750MM</b>				
	Providing and fixing factory made U Shaped board room table made out in 25 mm thk BWP marine ply top shell be finished with 4mm thk veneer with Mellamine polish finishing. Approved veneer patterns in 3 different types of veneers shall be provided. All visible areas to be finished in 4mm thk. veneer with 3 coats of mellamine polish All the edges shall be provided with 25mmx50 mm teak wood with reversewater fall edge Leg Detail- 25mm ply box with All side 4 mm thk veneer to be mellamine finish as per detail drg and including wire POP-UP box in same finished with provision of service door below table top , Service door should be provide in base box , 8nos Legrand or apptoved equivalent make 8 module pop up box shall be provided., Veneer basic rate - 2500/- per Sqm.	NOS	1.00	597,838	597,837.94
10.12	<b>VIP Dining Table- Size 6000MM X 1200MM X 750MM</b>				
	Providing and fixing factory made rectangular dining table made out in 25 mm thk BWP marine ply top shell be finished with 4mm thk veneer with Mellamine polish finishing. in Approved veneer patterns in 3 different types of veneers shall be provided. All visible areas to be finished in 4mm thk. veneer with 3 coats of mellamine polish All the edges shall be provided with 25mmx50 mm teak wood with reversewater fall edge Leg Detail- 25mm ply box with All side 4 mm thk veneer to be mellamine finish as per detail drg and , Service door should be provide in base box , . Veneer basic rate - 2500/- per Sqm.		1.00	177,000.00	177,000.00
10.13	<b>Cabin Dining Table</b>				
	Providing and fixing factory made circular dining table made out in 25 mm thk BWP marine ply top shell be finished with 4mm thk veneer with Mellamine polish finishing. in Approved veneer patterns in 3 different types of veneers shall be provided. All visible areas to be finished in 4mm thk. veneer with 3 coats of mellamine polish All the edges shall be provided with 25mmx50 mm teak wood with reversewater fall edge Leg Detail- 25mm ply box with All side 4 mm thk veneer to be mellamine finish as per detail drg and , Service door should be provide in base box , . Veneer basic rate - 2500/- per Sqm.				
10.13.1	<b>Circular dining table - 1050mm (dia) x 750mm(ht)</b>	NOS	1.00	47,000.00	₹ 47,000.00
10.13.2	<b>Circular dining table - 900mm (dia) x 750mm(ht)</b>	NOS	1.00	40,000.00	₹ 40,000.00
10.14	<b>Display Shelf - Veneer Finish</b>				
	Providing and fixing open book shelf , fabricated out of 19 mm BWP marine ply .Average depth of the storage will be 400 mm .All external surfaces to be finished with 4 mm thk. veneer with 3 coats of mellamine polish. All shelves also to be made of 19 mm thk marine ply and finished in 4.0 mm veneer. Open shelves, display niche as per approved design shall be provided. Shape of the shelves shall be in approved design pattern. All shelves shall have provision of LED profile Light. Basic rate of veneer Rs 2500/Sqm.	SQM	50.00	18,000.00	900,000.00
10.15	<b>Book Shelf -Laminate Finish</b>				
	Providing and fixing open book shelf , fabricated out of 19 mm BWP marine ply .Average depth of the storage will be 400 mm .All external surfaces to be finished with 1 mm thk. Laminate. All shelves also to be made of 19 mm thk marine ply and finished in 1.0 mm laminate. Open shelves, display niche as per approved design shall be provided. Shape of the shelves shall be in approved design pattern. All shelves shall have provision of LED profile Light.	SQM	15.00	13,500.00	202,500.00
	<b>TOTAL (LOOSE FURNITURE)</b>				₹ 14,924,689.94
<b>A</b>	<b>TOTAL (CIVIL AND INTERIOR FURNISHING WORKS)</b>				₹ 181,480,758.00

SANITARY AND PLUMBING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC					
SR.NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
<b>B</b>	<b>SANITARY AND PLUMBING WORKS</b>				
<b>1</b>	<b>European Water closet</b>				
	Providing and fixing wash down wall mounting EWC-P of approved shade, conforming to Pattern 2 of IS: 2556 (Part -II), with SWR Self it Soil PVC pipe and plug bend as per specifications; glazed vitreous / Coloured European Water Closet with Conceal cistern (IS-2326), with grouting the CI chair in side the floor/wall, rubber gaskets, connecting PVC 110mm dia soil pipe with PVC coupling, nuts, with dual flush valve of 32 mm, and solid verity heavy duty plastic seat cover as per IS-2548, of approved make; making hole in walls and making good etc. complete.				
1.1	Wall Mounted EWC : Make : Hindware. Model No. : 92524 or of equivalent make from Kohler or Hindware catalogue.	NOS	54.00	45,000.00	₹ 2,430,000.0
1.2	Dual Flush Valve : Make : Jaquar. Model No. : FLV-1089 or of equivalent make from Kohler or Hindware catalogue.	NOS	54.00	4,500.00	₹ 243,000.0
<b>2</b>	<b>Health Faucet</b>				
	Providing and fixing of Health Faucet, with 8mm Dia,1Rmt Long pvc Tube and Wall Hook accessories to complete the item.				
2.1	Health Faucet : Make : Jaquar. Model No. : ALD 565 or of equivalent make from Kohler or Hindware catalogue.	NOS	54.00	5,200.00	₹ 280,800.0
<b>3</b>	<b>Counter top Wash Basin</b>				
	Providing and fixing White glazed vitreous Counter Top Wash Basin, size 550x460 mm dia., 1 no, 32 mm CP Bottle trap with extension piece to wall flange with rubber adopter for waste connection and waste coupling.; with rack bolt fittings.				
3.1	Counter Top Wash Basin : Make : Hindware - Amazon. Model No. : 91094 or of equivalent make from Kohler or Hindware catalogue.	NOS	62.00	6,910.00	₹ 428,420.0
3.2	Bottle Trap : Make : Jaquar. Model No. : ALD :769b or of equivalent make from Kohler or Hindware catalogue.	NOS	62.00	1,692.00	₹ 104,904.0
<b>4</b>	<b>Basin Mixer</b>				
	Providing and fixing Single Lever Basin Mixer Tall , with required braided pipes from basin mixer tap to angular stop cock etc complete. (For Residential Flats)				
4.1	Single Lever Basin Mixer Tall: Make : Hindware - Element. Model No. : F360012CP or of equivalent make from Kohler or Hindware catalogue.	NOS	62.00	2,000.00	₹ 124,000.0
<b>5</b>	<b>Basin Tap</b>				
	Providing and fixing Basin Tap , with required braided pipes from basin mixer tap to angular stop cock etc complete. (For Society Office, Gym & Club House Area)				
5.1	Basin Tap: Make : Jaquar . Model No. : VGP-CHR-81037 or of equivalent make from Kohler or Hindware catalogue.	NOS	62.00	3,500.00	₹ 217,000.0
<b>6</b>	<b>Towel Rail</b>				
	Providing and fixing Towel rail of approved make including, providing and fixing C.P. brass screws, making holes in walls and making good.				
6.1	Towel Rail: Make : Jaquar. Model No. : ACN-CHR-1101N or of equivalent make from Kohler or Hindware catalogue.	NOS	20	1353.00	₹ 27,060.00
<b>7</b>	<b>Soap Holder</b>				
	Providing and fixing C.P. brass liquid soap Dispenser of approved make. Including providing and fixing screws, washers, cutting and making good the walls. (For Residential Flats & Common Area WCs)				
7.1	Soap Dispenser: Make : Jaquar. Model No. : ACN-CHR-1135N or of equivalent make from Kohler or Hindware catalogue.	NOS	40.00	1,370.00	₹ 54,800.00
<b>8</b>	<b>Coat Hook</b>				
	Providing and fixing in position best Indian make C.P. brass Double Coat Hook fixed into wall with C.P.brass screws and rawl plugs etc. complete including cutting and making good the walls etc.				
8.1	Double Coat Hook: Make : Jaquar. Model No. : AEC-1161 or of equivalent make from Kohler or Hindware catalogue.	NOS	54.00	400.00	₹ 21,600.00
<b>9</b>	<b>Sink</b>				
	Providing and fixing Stainless steel sink of size 1550x 545 mm, bowl size should be 460x460x230mm with one side drain R.S. or C.I. Painted brackets painted, 40mm dia. C.P. waste, C.P. brass chain and rubber plug, strainer with necessary C.P. brass unions complete including painting the fittings and cutting and making good the walls wherever required, with CP Tap etc. complete.				
9.1	Kitchen Sink: Make: Nirali: Model No. : Omni Small or Neelkanth, Faber or of equivalent make.				



**SANITARY AND PLUMBING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

SR.NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
9.2	<b>Sink Tap: Make: Jaquar. Model No. : FLORENTINE-FLR-CHR-5347ND or of equivalent make from Kohler or Hindware catalogue.</b>	NOS	8.00	18,000.00	₹ 144,000.0
10	<b>Geyser</b>				
	Providing and fixing of <b>Electrical Storage type Water Geyser</b> of approved make. Including providing and fixing screws, cutting and making good the walls. Including inlet outlet pipe & complete installation.				
10.1	<b>4L Capacity. Make : Jaquar / Racold or of equivalent make from Kohler or Hindware catalogue.</b>	NOS	4.00	10,692.00	₹ 42,768.0
11	<b>Brass Angle Valve</b>				
	Providing and fixing <b>15mm C.P. brass angle valve</b> with C.P. copper connecting pipe 450 mm long and nuts, washer and brass flange complete, including cutting and making good the wall where required. (For Wash Basin, Kitchen, Washing Machine & Geyser)				
11.1	<b>Angle Valve: Make: Hindware: Model No. : F100043 or of equivalent make from Kohler or Hindware catalogue.</b>	NOS	54.00	1,550.00	₹ 83,700.0
12	<b>Urinals</b>				
	Providing and Fixing White glazed vitreous Chinaware urinals with integrated sensor including all fittings like CP brass flush pipe, CP brass spreaders with unions and clamps (all in CP brass), CP brass waste coupling 40 mm dia, inlet connection, concealed 'Z' CI brackets etc., all complete including cutting and making the good the walls and floors wherever required as per the architectural drawings, manufacturers specification and as directed by the EIC / architect complete in all respects.				
12.1	K-18645IN-SS-0 Patio Urinal and K-24199IN-C03-CP Urinal Sensor with AC	NOS	36.00	45,000.00	₹ 1,620,000.0
13	<b>Urinal Partition</b>				
	Providing and fixing frameless urinal partition of approved make made of 8 mm thick toughened glass. Rate includes patch fittings etc., as directed by the EIC / Architect.				
13.1	1810-US/1810-UC Urinal Partition (Jaquar) / Omega Urinal Division (Hindware)	NOS	36.00	4,520.00	₹ 162,720.0
14	<b>Nahni Trap</b>				
	Providing & fixing <b>PVC Nahni trap</b> of 75mm dia diameter, with necessary distance piece of 75mm dia pipe and 150x150mm SS grating, making necessary SLAB /WALL holes and cutting walls, cawl etc complete.				
14.1	Make : Supreme, Finolex, Prince, Astral.	NOS	90.00	500.00	₹ 45,000.0
15	<b>Water Supply system</b>				
	Providing, fixing and laying in position CPVC pipes and fittings of specified class. Jointing shall be followed as per manufacturer recommendations / CPWD specifications. Rate includes brass threaded fittings like elbows, tees, unions, sockets and jointing materials etc., including testing of pipes to required pressure, chasing in walls, making good of the same etc., complete in all as per the directions of EIC / Architect.				
15.1	<b>40 mm dia</b>	RMT	150.00	715.00	₹ 107,250.0
15.2	<b>32 mm dia</b>	RMT	120.00	596.00	₹ 71,520.0
15.3	<b>25 mm dia</b>	RMT	180.00	536.00	₹ 96,480.0
15.4	<b>20 mm dia</b>	RMT	80.00	417.00	₹ 33,360.0
15.5	<b>15 mm dia</b>	RMT	50.00	358.00	₹ 17,900.0
16	<b>Plumbing soil pipe CI:</b>				
	Providing, fixing and laying in position centrifugally cast CI spun soil pipes of first quality as per IS: 3989 including CI fittings like bends, tees with or without plug including making lead caulked / dripseal joints and testing, laid in floor slab to the required slope or clamping to wall and ceiling including painting of exposed pipes with 2 coats of approved paint over one coat primer as directed by EIC/ Architect.				
16.1	<b>75 mm diameter</b>	RMT	50.00	2,384.00	₹ 119,200.0
16.2	<b>110 mm diameter</b>	RMT	50.00	2,980.00	₹ 149,000.0
17	<b>Plumbing soil pipe PVC:</b>				
	Providing, fixing and laying in position PVC pipes of first quality type A 6kg/cm2 as per IS: 13592 including fittings like bends, tees, single or double Y with or without plug including solvent cement joints and testing, laid in floor slab to the required slope or clamping to wall and ceiling as directed by EIC/ Architect.				
17.1	<b>75 mm diameter</b>	RMT	200.00	1,192.00	₹ 238,400.0
17.2	<b>110 mm diameter</b>	RMT	180.00	1,430.00	₹ 257,400.0
17.3	<b>62 mm diameter</b>	RMT	80.00	894.00	₹ 71,520.0

SANITARY AND PLUMBING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC					
SR.NO.	ITEM DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
<b>18</b>	<b>Rest Room Cubicles - Toilet Modular Partitions</b>				
	<p>Providing &amp; fixing Toilet Cubicle of approved make made of heat, bacteria, water, chemical, scratch, impact resistant 12mm thick solid compact laminate panels / high pressure laminate (HPL) compact boards. Finish of the solid compact laminate panels / high pressure laminate (HPL) compact boards should be of approved make and shade, which includes doors, pilasters &amp; intermediate panels finished with approved texture/shade as per the detail drawings &amp; as per IS 2046 (Indian Standard) and as per fire retardant BS-476/97 standard. (Make: Classique-Evergreen model of Greenlam Sturdo or approved equivalent).</p> <p>The rate shall be inclusive of providing and fixing in position necessary hardware made out of Stainless steel (grade 304) as per manufacturer's specifications and Architects instructions like (1) Door Knob, (2) Gravity Hinges, (3) Thumb turn lockset with Occupancy indicators, (4) Coat hooks with Door stopper (5) U-Channels, (6) Adjustable foot/pedestal, (7) Top rail with Corner connector (8) Rubber noise deafening tape (9) Screws &amp; wall Plugs.</p> <p>The top fitting should consist of SS round top rail which will get fixed with pilasters, with SS panel tube holder, SS corner bend (connected with top rail) will be used on the corner of cubicle in absence of brick wall, SS wall fixing is used only on the wall which will hold the SS top rail.</p> <p>All screws will of 304 Grade in stainless steel with satin finish. All pilasters are supported by stainless steel Bottom Cladding. The base of the stainless steel</p>				
<b>18.1</b>	Toilet Cubicle with standard dimension of 2025mm Height x 1000mm Width x 1550mm Depth, which includes 600mm door size width.	NOS	56.00	45,200.00	₹ 2,531,200.00
<b>19</b>	<b>Modular Lockers in Rest Rooms</b>				
	<p>Supplying &amp; fixing in position modular lockers of approved make made of heat, bacteria, water, chemical, scratch and impact resistant 3 mm &amp; 9 mm thick solid compact laminate panels / high pressure laminate (HPL) compact boards. Finish of the solid compact laminate panels / high pressure laminate (HPL) compact boards should be of approved make and shade which includes doors, shelves, side pannel. Top &amp; Bottom panels finished with approved texture/shape as per the detail drawings &amp; as per IS 2046 (Indian Standard). (Make: Greenlam Sturdo Locker Series or equivalent)</p> <p>The rate shall be inclusive of providing and fixing in position necessary hardware made out of Aluminum (Grade-6063-T6) and Stainless steel (grade-304) (1) Cam lock (2) Hinges, (3) Front section (4) Back section, (5) Infill section (6) Rubber lining (7) Screws &amp; Nut bolt</p> <p>Locker shall be constructed with 4 aluminum interlocking supporting frame work,</p>	NOS	32.00	3,000.00	₹ 96,000.00
	Standard dimension of locker unit shall be: Width 300mm x Depth 450mm x Height 1800mm -Locker 6 Tier				
<b>B</b>	<b>SANITARY AND PLUMBING WORKS</b>				₹ 9,819,002.00



**MODULAR FURNITURE BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

Sr. No.	Item Description	Unit	Qty.	Rate (in Rs.)	Amount (in Rs.)
<b>1</b>	<b>DESKING MODEL 120 DEGREE WS 1200 X 1200 X 600 -</b>				
1A	Make & Model - Featherlite (Collaborate loop), Godrej, Hermann Miller, Steelcase Supply and installation of modular 120 degree linear workstation system with 25 mm thick pre-laminated particle board tabletop at 750mm height, finished with 2 mm thick PVC edge lipping on all sides. Workstations shall be supported on powder-coated metal legs: end legs to be square closed-section (50x50 mm), with integrated electrical panels. Electrical management includes 450 mm access flap on cable beam, with vertical cable routing via powder-coated duct or power-in-leg (PILG) system. Powder-coated metal cross members shall provide structural stability. Each workstation to include a main screen of 18 mm thick frameless lacquered glass 2x(1050 mm x 350 mm height), mounted on both edges of the worktop using sturdy metal Y-brackets. A powder-coated perforated metal modesty panel shall be fixed below the tabletop and on the sides in between the looped legs. Finish and color options to be selected and approved by the architect/eEIC. All components to be factory finished and site-assembled as per approved mockup at site/factory and layout. Makes - Godrej, Featherlite, Hermann Miller, Steelcase	Nos.	320	32,000	10,240,000
1B	<b>Pedestal : 2 Box 1 File Prelam Pedestal with cushion, Side Chamfered On Levellors, Size 400 x 450 x 620mmHt.</b>	Nos.	320	7,390	2,364,800
<b>2</b>	<b>L-SHAPED WORKSTATION : 1500/1500W X 600D X 1200H</b>				
2A	Make & Model - Featherlite (Collaborate loop), Godrej, Hermann Miller, Steelcase Supply and installation of L-shaped workstation of dimensions 1500/1500W x 600D x 1100H, with tabletop at 750 mm height. Worksurface shall be 25 mm thick pre-laminated particle board, edge-banded on all sides with 2 mm PVC. Provision to be made for cut-outs for 450 mm long aluminum access flaps, as required. Understructure to consist of metal legs fabricated from 50x75 mm MS tapered verticals and 40x40 mm MS horizontal members, with powder-coated finish. Powder-coated 40x40 mm MS cross members with steel brackets shall provide rigidity. Cable management through a continuous, powder-coated single-tier raceway, with vertical ducts positioned at intervals to route cables from floor to raceway. A powder-coated perforated metal modesty panel shall be fixed below the tabletop and on the sides in between the looped legs. Privacy screen and return privacy screen (both 350 mm high) to be made of 18 mm thick fabric-wrapped panels with half lacquered glass panel. Finish and color options to be selected and approved by the architect/eEIC. All components to be factory finished and site-assembled as per approved mockup at site/factory and layout. Makes - Godrej, Featherlite, Hermann Miller, Steelcase	Nos.	5	25,000	125,000
2B	<b>Pedestal : 2 Box 1 File Prelam Pedestal with cushion, Side Chamfered On Levellors, Size 400 x 450 x 620mmHt.</b>	Nos.	5	7,390	36,950
<b>3</b>	<b>MEDIUM HEIGHT STORAGES WITH PLANTER BOX</b>				
	<b>Medium Height Storage with Openable Shutter SIZE 1050L X 450D X 1050 + 150HT</b> Supply and installation of factory-finished storage units of given size made from high-quality pre-laminated particle board. 150mm additional height to be provided at top for planter boxes. Top, sides, and shutters shall be 18 mm thick, while the back panel shall be 9 mm thick finished in 1mm thk laminate of approved shade and finish. All exposed edges must be finished with 2 mm thick PVC edge banding, machine-pressed for a seamless finish. The unit shall include shutters with integrated finger groove handles for a sleek, handle-free look. Each shutter shall be fitted with a standard locking mechanism for secure storage. Internal configuration to include adjustable or fixed shelves. All materials shall be termite-resistant, low-VOC. Laminate color and finish to be selected from the manufacturer's standard range and approved by the architect/designer. Finish and color options to be selected and approved by the architect/eEIC. All components to be factory finished and site-assembled as per approved layout. Installation to be completed at site as per approved layout and details. All joints, edges, and alignments must be uniform and flush to ensure a clean and durable final finish. Makes - Godrej, Featherlite, Hermann Miller, Steelcase	Nos.	70	12,534	877,380

MODULAR FURNITURE BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC					
Sr. No.	Item Description	Unit	Qty.	Rate (in Rs.)	Amount (in Rs.)
4	<b>MEDIUM HEIGHT STORAGES</b>				
	<b>Medium Height Storage with Openable Shutter</b> <b>Specifications:750L X 450D X 1200H</b> Supply and installion of factory-finished storage units of given size made from high-quality pre-laminated particle board. Top, sides, and shutters shall be 18 mm thick, while the back panel shall be 9 mm thick finished in 1mm thk laminate of approved shade and finish. All exposed edges must be finished with 2 mm thick PVC edge banding, machine-pressed for a seamless finish. The unit shall include shutters with integrated finger groove handles for a sleek, handle-free look. Each shutter shall be fitted with a standard locking mechanism for secure storage. Internal configuration to include adjustable or fixed shelves. All materials shall be termite-resistant, low-VOC. Laminate color and finish to be selected from the manufacturer's standard range and approved by the architect/designer. Finish and color options to be selected and approved by the architect/eEIC. All components to be factory finished and site-assembled as per approved layout. Installation to be completed at site as per approved layout and details. All joints, edges, and alignments must be uniform and flush to ensure a clean and durable final finish. <b>Makes - Godrej, Featherlite, Hermann Miller, Steelcase</b>	Nos.	70	8,147	570,290
5	<b>LOW HEIGHT STORAGES</b>				
	<b>Low Height Storage with Openable Shutter</b> <b>Specifications:750L X 450 DX 750H</b> Supply and installion of factory-finished storage units of given size made from high-quality pre-laminated particle board. 150mm additional height to be provided at top for planter boxes. Top, sides, and shutters shall be 18 mm thick, while the back panel shall be 9 mm thick finished in 1mm thk laminate of approved shade and finish. All exposed edges must be finished with 2 mm thick PVC edge banding, machine-pressed for a seamless finish. The unit shall include shutters with integrated finger groove handles for a sleek, handle-free look. Each shutter shall be fitted with a standard locking mechanism for secure storage. Internal configuration to include adjustable or fixed shelves. All materials shall be termite-resistant, low-VOC. Laminate color and finish to be selected from the manufacturer's standard range and approved by the architect/designer. Finish and color options to be selected and approved by the architect/eEIC. All components to be factory finished and site-assembled as per approved layout. Installation to be completed at site as per approved layout and details. All joints, edges, and alignments must be uniform and flush to ensure a clean and durable final finish. <b>Makes - Godrej, Featherlite, Hermann Miller, Steelcase</b>	Nos.	35	5,690	199,150
6	<b>Cabin Table with Side and Back Storage-Veneer Finish (Factory Made)</b>				
	Supply and installion of cabin table along with side storage unit of size 1500mm(l)x450mm(w)x750mm(h) and back storage unit of size 1500(l)x450mm(w)x750mm(h) (or sizes as specified in the drawings) constructed with a 19mm thk BWP grade plywood or MDF, finished with natural wood veneer (e.g., teak, oak, walnut) on all exposed surfaces. Veneer shall be minimum 4 mm thick and finished with 3 coats of melamine polish. Tabletop shall be minimum 25 mm thick with smooth, rounded and have reverse waterfall edges, and supported on gable ends, box-type base frame as per design. All joints shall be concealed and securely fixed. Pedestal drawer units of size 400 x 450 x 620mmHt to be made with soft-close channels and laminated internal finish. Provision for cable management, modesty panel, and integrated grommets to be provided as per design. Dimensions, design, veneer selection, and polish shade to be approved by architect prior to fabrication. All exposed surfaces shall be free of defects and finished uniformly. Complete assembly and finishing to be done at site as per approved shop drawings. <b>Makes - Godrej, Featherlite, Hermann Miller, Steelcase</b>				
	<b>DMD TABLE - SIZE: 3000MM X 900MM X 750MM</b>	NOS	1.00	229,185.00	229,185.00
	<b>CGM TABLE - SIZE: 3000MM X 800MM X 750MM</b>	NOS	1.00	207,500.00	207,500.00
	<b>GM TABLE - SIZE: 2400MM X 800MM X 750MM</b>	NOS	4.00	197,000.00	788,000.00
	<b>DGM TABLE - SIZE: 1800MM X 750MM X 750MM</b>	NOS	15.00	168,000.00	2,520,000.00
	<b>TOTAL (MODULAR FURNITURE)</b>				<b>18,158,255</b>

**LOOSE FURNITURE BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

SR.NO	DESCRIPTION	UNIT	QTY	RATE (in Rs.)	AMOUNT (in Rs.)
1.00	<b>Lounge Chairs (cabins)</b>				
	Supply and installation of high-end lounge chair of size 750(l) x 750(d) x 900 (h)mm suitable for executive lounge areas. Chair frame shall be constructed from seasoned hardwood or powder-coated metal for durability and stability. Seat and backrest to be ergonomically contoured, upholstered with high-density PU foam (minimum 40 kg/m <sup>3</sup> ) and finished in premium fabric, leatherette, or genuine leather, as approved by the architect. Upholstery shall be wrinkle-resistant, flame-retardant, and available in a range of colors. Armrests, where provided, shall be cushioned and finished to match overall aesthetics. Legs or base to be made of powder-coated metal with anti-skid floor glides. All materials must be low-VOC and conform to international durability and safety standards. Product samples, material swatches, and shop drawings to be submitted for approval from Architect/EIC before procurement and installation. Basic rate - Rs. 35,000/- MAKE- Godrej, Featherlite Or Approved Equivalent	NOS	8.00	40,000	320,000.00
2.00	<b>Lounge Chairs (waiting + breakout area)</b>				
	Supply and installation of waiting area lounge chair of size 620(l) x 540(d) x 770 (h)mm. The chair shall have a robust internal frame made of kiln-dried hardwood or powder-coated MS (mild steel) to ensure long-term durability. Seat and backrest to be ergonomically designed and upholstered with high-resilience PU foam (minimum density 32–40 kg/m <sup>3</sup> ) for comfort. Upholstery material shall be high-quality fabric, stain-resistant, and easy to maintain. The chair must have a fixed base with powder-coated metal legs equipped with non-marking floor glides. Armrests, if included, to be cushioned or integrated into the chair frame. All materials must be low-VOC and conform to international durability and safety standards. Product samples, material swatches, and shop drawings to be submitted for approval from Architect/EIC before procurement and installation. Basic rate - Rs. 15,000/- MAKE- Godrej, Featherlite Or Approved Equivalent	NOS	50.00	18,000	900,000.00
3.00	<b>2 seater sofa</b>				
	Supply and installation of three/two-seater waiting area sofa of size 1500(l) x 650(d) mm. The sofa shall have a durable internal frame made of kiln-dried hardwood or powder-coated MS (mild steel), designed for heavy-duty use. Seat and back cushions shall be made from high-density polyurethane foam (minimum 32–40 kg/m <sup>3</sup> ) to ensure comfort and long-term shape retention. Upholstery shall be high-quality fabric or leatherette that is UV-resistant, stain-resistant, and easy to maintain. Armrests shall be integrated or cushioned, designed for ergonomic comfort. Sofa legs or base shall be made of powder-coated metal with non-marking floor glides. All materials must be low-VOC and conform to international durability and safety standards. Product samples, material swatches, and shop drawings to be submitted for approval from Architect/EIC before procurement and installation. Basic rate - Rs.70,000/- MAKE- Godrej, Featherlite Or Approved Equivalent	NOS	30.00	80,000	2,400,000.00
4.00	<b>Single seater sofa</b>				
	Supply and installation of single-seater sofa chair of size 800(l) x 700(d) x 725(h)mm. The internal frame shall be made of seasoned hardwood or powder-coated mild steel for structural stability and durability. Seat and backrest cushions shall be upholstered with high-density polyurethane foam (minimum 32–40 kg/m <sup>3</sup> ) for lasting comfort and shape retention. Upholstery to be high-quality fabric or leatherette that is stain-resistant, easy to clean, and fire-retardant. The base shall be supported on powder-coated metal legs with anti-skid floor protectors. Design must offer ergonomic support, with optional integrated or upholstered armrests for additional comfort. All materials must be low-VOC and conform to international durability and safety standards. Product samples, material swatches, and shop drawings to be submitted for approval from Architect/EIC before procurement and installation. Basic rate - Rs. 25,000/- MAKE- Godrej, Featherlite Or Approved Equivalent	NOS	18.00	30,000	540,000.00

**LOOSE FURNITURE BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

SR.NO	DESCRIPTION	UNIT	QTY	RATE (in Rs.)	AMOUNT (in Rs.)
5.00	<b>Circular dining tables (cafeteria)</b>				
	Supply and installation of circular dining table of size 900 mm diameter x 750 mm height. Tabletop shall be either 50 mm thick MDF with high-quality white PU paint finish or 25 mm thick pre-laminated particle board with reverse chamfered edges and matching PVC lipping. The table shall rest on a durable understructure made of SS 202 Grade. Stainless steel legs to be laser-cut and finished in a mirror-polished surface.. The base shall be designed for maximum stability and aesthetic appeal. All edges must be smooth and safe, with no sharp corners. All materials must be low-VOC and conform to international durability and safety standards. Product samples, material swatches, and shop drawings to be submitted for approval from Architect/EIC before procurement and installation. Basic rate - Rs. 6,000/- MAKE- Godrej, Featherlite Or Approved Equivalent	NOS	8.00	7,000	56,000.00
6.00	<b>Rectangular dining tables (multipurpose hall)</b>				
	Supply and installation of rectangular dining table of size 1200x900mm x 750 mm height. Tabletop shall be either 50 mm thick MDF with high-quality white PU paint finish or 25 mm thick pre-laminated particle board with reverse chamfered edges and matching PVC lipping. The table shall rest on a durable understructure made of SS 202 Grade. Stainless steel legs to be laser-cut and finished in a mirror-polished surface.. The base shall be designed for maximum stability and aesthetic appeal. All edges must be smooth and safe, with no sharp corners. All materials must be low-VOC and conform to international durability and safety standards. Product samples, material swatches, and shop drawings to be submitted for approval from Architect/EIC before procurement and installation. Basic rate - Rs. 8,000/- MAKE- Godrej, Featherlite Or Approved Equivalent	NOS	9.00	10,000	90,000.00
7.00	<b>Café chairs</b>				
	Supply and installation of cafeteria chairs of size 450(l) x 450(w) x 600(h) mm. Chair seat and back shall be ergonomically contoured, made from molded plywood finished in high-pressure laminate on both sides for durability, stain resistance, and ease of cleaning. Edges shall be smooth-finished and sealed for moisture resistance. The chair frame shall be fabricated from MS (mild steel) round pipe, minimum 19 mm diameter, with a durable powder-coated finish in black or color as approved by the architect/eic. Welds to be cleanly finished and joints structurally sound to support commercial-grade usage. Chair must be lightweight, stackable or easily movable, and stable on all floor types. Glides or caps to be provided on all legs to prevent floor damage. All materials must be low-VOC and conform to international durability and safety standards. Product samples, material swatches, and shop drawings to be submitted for approval from Architect/EIC before procurement and installation. Basic rate - Rs. 2,800/- MAKE- Godrej, Featherlite Or Approved Equivalent	NOS	44.00	3,000	132,000.00

LOOSE FURNITURE BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC					
SR.NO	DESCRIPTION	UNIT	QTY	RATE (in Rs.)	AMOUNT (in Rs.)
8.00	<b>Vip Dining Chairs</b>				
	Supply and installation of high-quality wooden dining chairs constructed from kiln-dried, seasoned hardwood (such as teak, oak, or ash). Chair frame shall be factory made or precision-joined for structural stability and longevity, with smooth edges and joints reinforced with adhesive and mechanical fasteners. Seat and backrest shall be ergonomically designed for comfort and may include upholstered padding with high-density PU foam (minimum 32 kg/m <sup>3</sup> ), finished in premium fabric, or leatherette as approved. Wood surfaces shall be finely sanded and finished in 3 coats of melamine polish. Legs shall be integrated with non-marking floor glides for surface protection. All materials shall be termite-resistant, low-VOC, and conform to relevant fire safety and durability standards. Product samples, material swatches, and shop drawings to be submitted for approval from Architect/EIC before procurement and installation. Basic rate - Rs. 15,000/- MAKE- Godrej, Featherlite, Or Approved Equivalent	NOS	26.00	18,000	468,000.00
9.00	<b>Rectangular center table</b>				
26.00	Supply and installation of rectangular center table of size 800 mm (L) x 500 mm (W). Tabletop shall be made of 8 mm thick toughened clear or frosted glass or corian with polished beveled edges, securely fixed over a supporting sub-frame. Frame and base shall be constructed from powder-coated mild steel in a designer profile. Metal parts to be epoxy powder-coated in approved finish. Understructure to ensure stability and load-bearing capacity with anti-scratch floor glides. All components to comply with durability, safety, and aesthetic standards for high-traffic public use. Product samples, material swatches, and shop drawings to be submitted for approval from Architect/EIC before procurement and installation. Basic rate - Rs. 20,000/- MAKE- Godrej, Featherlite Or Approved Equivalent	NOS	27.00	24,000	648,000.00
10.00	<b>Linear Running sofa</b>				
	Supply and installation of linear running sofa having depth 650mm. The internal frame shall be made of seasoned hardwood or powder-coated mild steel for structural stability and durability. Seat and backrest cushions shall be upholstered with high-density polyurethane foam (minimum 32–40 kg/m <sup>3</sup> ) for lasting comfort and shape retention. Upholstery to be high-quality fabric or leatherette that is stain-resistant, easy to clean, and fire-retardant. The base shall be supported on powder-coated metal legs with anti-skid floor protectors. Design must offer ergonomic support, with optional integrated or upholstered armrests for additional comfort. All materials must be low-VOC and conform to international durability and safety standards. Product samples, material swatches, and shop drawings to be submitted for approval from Architect/EIC before procurement and installation. Basic rate - Rs. 18,500 Per RMT. MAKE- Godrej, Featherlite Or Approved Equivalent	RMT	100.00	21,500	2,150,000.00
<b>BASIC TOTAL</b>					<b>7,704,000.00</b>

CHAIRS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC

SL.NO	Item Description	UNIT	QTY	Rate (in Rs.)	Amount (in Rs.)
1	<b>Mid back mesh chairs (workstation + meeting room)</b>				
	<p>Make: Godrej, Featherlite, Hermann Miller, Steelcase  Model: THRILL MESH BACK CHAIR (Godrej), Featherlite, Hermann Miller, Steelcase  Rs. 14,000/-</p> <p>1. SEAT/BACK ASSEMBLY: The seat is made up of 1.5 ±0.1cm. thick hot-pressed plywood and upholstered with fabric upholstery covers and moulded Polyurethane foam. The seat has extra thick foam on front edge to give comfort to popliteal area.  The Back is injection moulded in glass filled Polypropylene which is upholstered with Mesh fabric.The back consist of adjustable lumbar support made of injection moulded Polypropylene having an adjustment of 5.0 ±0.1 cm.  The chair seat &amp; back size are  *SEAT SIZE 53.5 cm. (W) x 51.0 cm. (D)  *MESH BACK SIZE 51.0 cm. (W) x 70.0 cm. (H)</p> <p>2. HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane seat foam is moulded with density 45±2 kg/m³ and hardness 16±2 kgf as per IS:7888 for 25% compression.</p> <p>3. ARMRESTS :The adjustable armrest is designed with the following features :  · Up-Down adjustment– 6 steps (7.2 ± 0.5cm range)  · Armrest top is mounted on Armrest structure made of glass filled Nylon  · Armrest Top is PU moulded over glass filled Nylon insert.</p> <p>4. CENTER TILT SYNCHRO MECHANISM WITH MULTI LOCK : The mechanism is designed with the following features:  · 360° revolving type.  · 3 position locking with anti shock mechanism.  · Tilt tension adjustment  The complete headrest assembly is retro fit to the main chair.</p> <p>5. PNEUMATIC HEIGHT ADJUSTMENT: The pneumatic height adjustment with an adjustment stroke of 9.5 ± 0.3cm.</p> <p>6. PEDESTAL ASSEMBLY : The pedestal is injection moulded in glass-filled Nylon and fitted with 5 nos. twin wheel castors. The pedestal is 66.1 ±0.5cm. pitch-center dia. (76.1 ±1.0cm with castors).</p> <p>7. TWIN WHEEL CASTORS : The twin wheel castors are injection moulded in Black Nylon.  Indian Standard 17631:2022 approved chair</p>	No's	560	16,000.00	8,960,000.00
2	<b>Mid back mesh chairs (reception + ps + visitor)</b>				
	<p>Make: Godrej, Featherlite , Hermann Miller, Steelcase  Model: OXBO ENH Chair 7501RG (Godrej), Featherlite , Hermann Miller, Steelcase  Basic rate - Rs.10,000</p> <p>1. SEAT ASSEMBLY: The seat assembly is made up of 1.2 ±0.1cm. thick hot-pressed plywood measured as per QA method described in OCP-QLTA-P14-18, upholstered with fabric upholstery covers and moulded Polyurethane foam.  * SEAT SIZE (FOR 7501RG, 7502RG, 7512RG): 47.0 cm. (W) x 48.0 cm. (D)</p> <p>2. BACK ASSEMBLY: The back assembly is made of powder coated (DFT 40-60 microns) tubular frame of O 2.54 ±0.03cm. x 0.2 ±0.016cm.thk.  MS ERW tube designed with contoured lumbar support for extra comfort. The back is upholstered using Net fabric with high tenacity yarn.  46.5 cm (W) x 70.5 cm (H)</p> <p>3. HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane foam is moulded with density =45+/-2 kg/m and hardness load 16 \$ 2 kgf as per IS:7888 for 25% compression.</p> <p>4. ARMRESTS: The one-piece armrests are injection moulded from black Co-polymer Polypropylene.</p> <p>5. CENTRE-TILT MECHANISM (FOR 7501RG, 7502RG): The mechanism is designed with the following features:  360° revolving type.  * 17° +2° maximum tilt on pivot at centre  Upright position locking.  Tilt tension adjustment.</p> <p>6. TUBULAR FRAME (FOR 7512RG): The powder coated (DFT 40-60 microns) tubular frame is cantilever type &amp; made of @ 2.54 +0.03cm. x 0.2 ±0.016cm.thk. M.S. ER.W. PNEUMATIC HEIGHT ADJUSTMENT (FOR 7501RG, 7502RG): The pneumatic height adjustment has an adjustment stroke of 11.0 ±0.3cm.</p> <p>8. TELESCOPIC BELLOW ASSY (FOR 7501RG, 7502RG): The bellow is 3 piece telescopic type and injection moulded in Black Polypropylene.</p> <p>9. PEDESTAL ASSEMBLY (FOR 7501RG, 7502RG): The pedestal is injection moulded in black 33% glass-filled Nylon66 and fitted with 5 nos. twin wheel castors. The pedestal is 66.3 \$0.5cm. pitch-center dia. (76.3 1.0cm with castors.)</p> <p>10. TWIN WHEEL CASTORS (FOR 7501RG, 7502RG): The twin wheel castors are injection moulded in Black Nylon.  Indian Standard 17631:2022 approved chair</p>	No's	55	12,000.00	660,000.00

**CHAIRS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

SL.NO	Item Description	UNIT	QTY	Rate (in Rs.)	Amount (in Rs.)
3	<b>High back mesh chairs (dgm)</b>				
	<p>Make: Godrej, Featherlite , Hermann Miller, Steelcase  Model: THRILL MESH BACK CHAIR WITH HEADREST (Godrej), Featherlite , Hermann Miller, Steelcase  Basic rate - Rs. 20,000/-</p> <p>1. SEAT/BACK ASSEMBLY: The seat is made up of 1.5 ±0.1cm. thick hot-pressed plywood and upholstered with fabric upholstery covers and moulded Polyurethane foam. The seat has extra thick foam on front edge to give comfort to popliteal area.  The Back is injection moulded in glass filled Polypropylene which is upholstered with Mesh fabric.The back consist of adjustable lumbar support made of injection moulded Polypropylene having an adjustment of 5.0 ±0.1 cm.  The chair seat &amp; back size are  *SEAT SIZE 53.5 cm. (W) x 51.0 cm. (D)  *MESH BACK SIZE 51.0 cm. (W) x 70.0 cm. (H)</p> <p>2. HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane seat foam is moulded with density 45±2 kg/m³ and hardness 16±2 kgf as per IS:7888 for 25% compression.</p> <p>3. ARMRESTS :The adjustable armrest is designed with the following features :  · Up-Down adjustment– 6 steps (7.2 ± 0.5cm range)  · Armrest top is mounted on Armrest structure made of glass filled Nylon  · Armrest Top is PU moulded over glass filled Nylon insert.</p> <p>4. CENTER TILT SYNCHRO MECHANISM WITH MULTI LOCK : The mechanism is designed with the following features:  · 360° revolving type.  · 3 position locking with anti shock mechanism.  · Tilt tension adjustment</p> <p>5. HEADREST: The Headrest sub-assembly is made up of injection moulded glass filled Polypropylene which is upholstered with moulded HR polyurethane foam and fabric. It has an adjustment of 4.0 ±0.1cm &amp; it is assembled over Thrill mesh back chair.  The complete headrest assembly is retro fit to the main chair.</p> <p>6. PNEUMATIC HEIGHT ADJUSTMENT: The pneumatic height adjustment with an adjustment stroke of 9.5 ± 0.3cm.</p> <p>7. PEDESTAL ASSEMBLY : The pedestal is injection moulded in glass-filled Nylon and fitted with 5 nos. twin wheel castors. The pedestal is 66.1 ±0.5cm. pitch-center dia. (76.1 ±1.0cm with castors).</p> <p>8. TWIN WHEEL CASTORS : The twin wheel castors are injection moulded in Black Nylon.</p>	No's	14	22,000.00	308,000.00
4	<b>High back cushion chairs (gm + conference)</b>				
	<p>Make: Godrej, Featherlite , Hermann Miller, Steelcase  Model: Thrill Executive Cushion High back chair Leatherette (Godrej), Featherlite , Hermann Miller, Steelcase  Basic Rate- Rs. 24,000/-</p> <p>1. SEAT/BACK ASSEMBLY: The back is made up of 1.2 ±0.1cm. thick hot-pressed plywood &amp; seat is made up of 1.5 ±0.1cm. thick hot-pressed plywood measured as per QA method described in OCP-QLTA-P14-18 and upholstered with fabric upholstery covers and moulded Polyurethane foam. The back foam is designed with contoured foam lumbar support. The seat has extra thick foam on front edge to give comfort to popliteal area.The Recron filling done in seat &amp; back ( Executive chairs only) for extra fluffiness and comfort in chair.  The chair dimensions are:  Width (W): 77.0CM, Depth (D): 77.0CM, Height (H): 114.0-221.5 CM, Seat Height (SH): 45.0-54.5 CM</p> <p>2. HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane foam is moulded with density = 45±2 kg/m³ and hardness load 14 ± 2 kgf as per IS:7888 for 25% compression.</p> <p>3. ARMRESTS (THRILL Executive CHAIR) : The 3-way adjustable armrest is made of die-cast aluminium with buffing finish designed with the following features :  · Up-Down adjustment–7 steps (7.0 ± 0.5cm range)  · It has to &amp; fro movement along with Swivel adjustment.</p> <p>4. CENTER TILT SYNCHRO MECHANISM WITH MULTI LOCK : The mechanism is designed with the following features:  · 360° revolving type.  · 3 position locking with anti shock mechanism.  · Tilt tension adjustment</p> <p>5. TUBULAR VISITOR FRAME ( Thrill Executive Chair): The Buffed polished tubular frame is cantilever type &amp; made of Ø 2.54 ±0.03cm. x 0.2 ±0.016cm.thk. SS304 Tube</p> <p>6. PNEUMATIC HEIGHT ADJUSTMENT : The pneumatic height adjustment has an adjustment stroke of 9.5 ± 0.3 cm</p> <p>7. PEDESTAL ASSEMBLY : The pedestal is injection moulded in black 33% glass-filled Nylon and fitted with 5 nos. twin wheel castors. The pedestal is 66.1 ±0.5cm. pitch-center dia. (76.1 ±1.0cm with castors).</p> <p>8. PEDESTAL ASSEMBLY (THRILL EXECUTIVE) : The pedestal is made of die-cast aluminium with buffing finish. It is fitted with 5nos. twin wheel castor. The pedestal is 67.0 ± 0.5cm pitch-center dia. (77.0 ± 1.0cm with castors).</p> <p>9. TWIN WHEEL CASTORS : The twin wheel castors are injection moulded in Chrome Nylon.  Indian Standard 17631:2022 approved chair</p>	No's	45	26,500.00	1,192,500.00



**CHAIRS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

SL.NO	Item Description	UNIT	QTY	Rate (in Rs.)	Amount (in Rs.)
5	<b>High back leather/leatherette chairs (cgm + dmd)</b>				
	<p>Make: Godrej, Featherlite , Hermann Miller, Steelcase  Model: Thrill Executive Cushion High back chair Leatherette (Godrej), Featherlite, Hermann Miller, Steelcase  Basic rate - Rs. 45,000/-</p> <p>1. SEAT/BACK ASSEMBLY: The back is made up of 1.2 ±0.1cm. thick hot-pressed plywood &amp; seat is made up of 1.5 ±0.1cm. thick hot-pressed plywood measured as per QA method described in OCP QLTA-P14-18 and upholstered with fabric upholstery covers and moulded Polyurethane foam. The back foam is designed with contoured foam lumbar support. The seat has extra thick foam on front edge to give comfort to popliteal area. The Recron filling done in seat &amp; back ( Executive chairs only) for extra fluffiness and comfort in chair. The chair dimensions are:  Width (W): 77.0CM, Depth (D): 77.0CM, Height (H): 114.0-221.5 CM, Seat Height (SH): 45.0-54.5 CM</p> <p>2. HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane foam is moulded with density = 45±2 kg/m<sup>3</sup> and hardness load 14 ± 2 kgf as per IS:7888 for 25% compression.</p> <p>3. ARMRESTS (THRILL Executive CHAIR) : The 3-way adjustable armrest is made of die-cast aluminium with buffing finish designed with the following features :  · Up-Down adjustment–7 steps (7.0 ± 0.5cm range)  · It has to &amp; fro movement along with Swivel adjustment.</p> <p>4. CENTER TILT SYNCHRO MECHANISM WITH MULTI LOCK : The mechanism is designed with the following features:  • 360° revolving type.  • 3 position locking with anti shock mechanism.  • Tilt tension adjustment</p> <p>5. TUBULAR VISITOR FRAME ( Thrill Executive Chair): The Buffed polished tubular frame is cantilever type &amp; made of Ø 2.54 ±0.03cm. x 0.2 ±0.016cm.thk. SS304 Tube</p> <p>6. PNEUMATIC HEIGHT ADJUSTMENT : The pneumatic height adjustment has an adjustment stroke of 9.5 ± 0.3 cm</p> <p>7. PEDESTAL ASSEMBLY : The pedestal is injection moulded in black 33% glass-filled Nylon and fitted with 5 nos. twin wheel castors. The pedestal is 66.1 ±0.5cm. pitch-center dia. (76.1 ±1.0cm with castors).</p> <p>8. PEDESTAL ASSEMBLY (THRILL EXECUTIVE) : The pedestal is made of die-cast aluminium with buffing finish. It is fitted with 5nos. twin wheel castor. The pedestal is 67.0 ± 0.5cm pitch-center dia. (77.0 ± 1.0cm with castors).</p> <p>9. TWIN WHEEL CASTORS : The twin wheel castors are injection moulded in Chrome Nylon.  Indian Standard 17631:2022 approved chair</p>	No's	2	50,000.00	100,000.00
6	<b>High back mesh chairs (meeting )</b>				
	<p>Make: Godrej, Featherlite or approved equivalent  Model: Thrill MESH BACK CHAIR WITH HEADREST (Godrej), Featherlite, Hermann Miller, Steelcase  Basic rate - Rs. 16,000/-</p> <p>1. SEAT/BACK ASSEMBLY: The seat is made up of 1.5 ±0.1cm. thick hot-pressed plywood and upholstered with fabric upholstery covers and moulded Polyurethane foam. The seat has extra thick foam on front edge to give comfort to popliteal area.  The Back is injection moulded in glass filled Polypropylene which is upholstered with Mesh fabric. The back consist of adjustable lumbar support made of injection moulded Polypropylene having an adjustment of 5.0 ±0.1 cm.  The chair seat &amp; back size are  *SEAT SIZE 53.5 cm. (W) x 51.0 cm. (D)  *MESH BACK SIZE 51.0 cm. (W) x 70.0 cm. (H)</p> <p>2. HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane seat foam is moulded with density 45±2 kg/m<sup>3</sup> and hardness 16±2 kgf as per IS:7888 for 25% compression.</p> <p>3. ARMRESTS :The adjustable armrest is designed with the following features :  · Up-Down adjustment– 6 steps (7.2 ± 0.5cm range)  · Armrest top is mounted on Armrest structure made of glass filled Nylon  · Armrest Top is PU moulded over glass filled Nylon insert.</p> <p>4. CENTER TILT SYNCHRO MECHANISM WITH MULTI LOCK : The mechanism is designed with the following features:  · 360° revolving type.  · 3 position locking with anti shock mechanism.  · Tilt tension adjustment</p> <p>5. HEADREST: The Headrest sub-assembly is made up of injection moulded glass filled Polypropylene which is upholstered with moulded HR polyurethane foam and fabric. It has an adjustment of 4.0 ±0.1cm &amp; it is assembled over Thrill mesh back chair.  The complete headrest assembly is retro fit to the main chair.</p> <p>6. PNEUMATIC HEIGHT ADJUSTMENT: The pneumatic height adjustment with an adjustment stroke of 9.5 ± 0.3cm.</p> <p>7. PEDESTAL ASSEMBLY : The pedestal is injection moulded in glass-filled Nylon and fitted with 5 nos. twin wheel castors. The pedestal is 66.1 ±0.5cm. pitch-center dia. (76.1 ±1.0cm with castors).</p> <p>8. TWIN WHEEL CASTORS : The twin wheel castors are injection moulded in Black Nylon.  Indian Standard 17631:2022 approved chair</p>	No's	4	19,875.00	79,500.00



**CHAIRS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

SL.NO	Item Description	UNIT	QTY	Rate (in Rs.)	Amount (in Rs.)
7	<b>Mid back leatherette chairs (dgm+cgm visitor )</b>				
	<p>Make: Godrej, Featherlite, Hermann Miller, Steelcase  Model: Thrill Executive Cushion Full back chair Leatherette (Godrej), Featherlite, Hermann Miller, Steelcase  Basic rate - Rs. 22,000/-</p> <p>1. SEAT/BACK ASSEMBLY: The back is made up of 1.2 ±0.1cm. thick hot-pressed plywood &amp; seat is made up of 1.5 ±0.1cm. thick hot-pressed plywood measured as per QA method described in OCP-QLTA-P14-18 and upholstered with fabric upholstery covers and moulded Polyurethane foam. The back foam is designed with contoured foam lumbar support. The seat has extra thick foam on front edge to give comfort to popliteal area. The Recron filling done in seat &amp; back ( Executive chairs only) for extra fluffiness and comfort in chair.</p> <p>The chair dimensions are:  Width (W): 77.0CM, Depth (D): 77.0CM, Height (H): 100.0-109.5 CM Seat Height (SH): 45.0-54.5 CM</p> <p>2. HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane foam is moulded with density = 45±2 kg/m<sup>3</sup> and hardness load 14 ± 2 kgf as per IS:7888 for 25% compression.</p> <p>3. ARMRESTS (THRILL Executive CHAIR) : The 3-way adjustable armrest is made of die-cast aluminium with buffing finish designed with the following features :  • Up-Down adjustment—7 steps (7.0 ± 0.5cm range)  • It has to &amp; fro movement along with Swivel adjustment.</p> <p>4. CENTER TILT SYNCHRO MECHANISM WITH MULTI LOCK : The mechanism is designed with the following features:  • 360° revolving type.  • 3 position locking with anti shock mechanism.  • Tilt tension adjustment</p> <p>5. TUBULAR VISITOR FRAME ( Thrill Executive Chair): The Buffed polished tubular frame is cantilever type &amp; made of Ø 2.54 ±0.03cm. x 0.2 ±0.016cm.thk. SS304 Tube</p> <p>6. PNEUMATIC HEIGHT ADJUSTMENT : The pneumatic height adjustment has an adjustment stroke of 9.5 ± 0.3 cm</p> <p>7. PEDESTAL ASSEMBLY : The pedestal is injection moulded in black 33% glass-filled Nylon and fitted with 5 nos. twin wheel castors. The pedestal is 66.1 ±0.5cm. pitch-center dia. (76.1 ±1.0cm with castors).</p> <p>8. PEDESTAL ASSEMBLY (THRILL EXECUTIVE) : The pedestal is made of die-cast aluminium with buffing finish. It is fitted with 5nos. twin wheel castor. The pedestal is 67.0 ± 0.5cm pitch-center dia. (77.0 ± 1.0cm with castors).</p> <p>9. TWIN WHEEL CASTORS : The twin wheel castors are injection moulded in Chrome Nylon.  Indian Standard 17631:2022 approved chair</p>	No's	6	25,000.00	150,000.00
				<b>TOTAL</b>	<b>11,450,000.00</b>



**HVAC WORKS FOR SBI LHO, BKC, MUMBAI  
GRAND SUMMARY**

Sr.	Description	Estimated Cost
		Amount
<b>A</b>	<b>CHILLER</b>	
1	Chiller - Section 'A'	6,140,884
2	Pumps - Section 'B'	1,120,000
3	Chilled Water Piping With Insulation - Section 'C'	814,485
4	Condenser Water Piping With Insulation - Section 'D'	348,028
	<b>GRAND TOTAL FOR (CHW) BOQ - A</b>	<b>8,423,397</b>
<b>B</b>	<b>CHW</b>	
1	Chilled Water Piping With Insulation - Section 'A'	945,456
2	Air Handling Units (Smart AHUs) - Section 'B'	4,400,000
3	Sheet Metal Works - Section 'C'	13,750,055
4	Thermal & Acoustic Insulation - Section 'D'	5,276,400
5	Ventilation Work - Section 'E'	404,600
	<b>GRAND TOTAL FOR (CHW) BOQ - B</b>	<b>24,776,511</b>
<b>C</b>	<b>VRF BOQ</b>	
1	SITC of VRF ODU / IDU and Other Accessories	2,061,419
2	Refrigerant Piping	760,061
3	Frame Work	109,200
8	Electrical Work	369,710
	<b>GRAND TOTAL - C</b>	<b>3,300,390</b>
<b>D</b>	<b>UNITARY BOQ</b>	
1	Air-Cooled Hi-Wall Split Units	81,000
2	Indigenous Work	21,450
	<b>GRAND TOTAL - D</b>	<b>102,450</b>
<b>E</b>	<b>CRAC UNITS BOQ</b>	
1	Air Cooled DX type Computer Room Air conditioners (CRAC) units	11,128,825
	<b>GRAND TOTAL - E</b>	<b>11,128,825</b>
	<b>GRAND TOTAL -A+B+C+D+E</b>	<b>47,731,573</b>



**HVAC WORKS FOR SBI LHO, BKC, MUMBAI  
GRAND SUMMARY**

<b>F</b>	<b>Comprehensive Annual Maintenance Contract for Air Cooled DX type Computer Room Air conditioners (CRAC) units and its related equipments</b>	
	90KW - 3 Nos	
	100KW - 2 Nos	-
1	1st year (Post DLP)	4,50,000
2	2nd year	4,72,500
3	3rd year	4,96,125
4	4th year	5,20,931
5	5th year	5,46,978
	<b>GRAND TOTAL - F *</b>	<b>24,86,534</b>
* This amount is indicative and is not included in the tender cost but the said amount will be paid after successful completion of Defect Liability Period of 1 year		

**Note :** GST Extra



## CHILLER BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai

The work includes design, supply, erection, testing & commissioning of the complete Air-conditioning system.

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
<b>1.0</b>	<b>CHILLERS - SECTION 'A'</b>				
<b>1.1</b>	<b>Water Cooled Screw Chiller</b>				
	Supply / Installation / Testing / commissioning Of Screw Chiller as per the Specification & with following Tech Data -Design, SITC of AHRI Certified 300TR (Actual Capacity) Helical Rotary Screw water Chilling machine complete with Semi-hermetic Twin/Multi compressor Screw chiller, R-134A Refrigerant, Motor, Starter Panel, Water Cooled Condenser, Insulated flooded Chiller, Integral acoustic insulation for the entire chiller to reduce noise level, Differential pressure switch, Victaulic coupling, Electronic expansion valve, Flow switch at Chiller & Condenser, Power control and microprocessor based control system, Vibration Isolator, Integral Refrigerant piping & wiring, Accessories as required and called for Automatic and safety Control mounted in central Console Panel, Necessary Cabling & Earthing Strip & All mounted on a Steel frame complete & Factory tested at AHRI certified test bed. Operating Voltage 415 V + 15 %, 50 c/s, 3 Phase, AC supply including Unloading, Lifting, shifting & rigging of above chiller up to desired location. The cost shall include crane / hydra and cushy foot mount etc if required.				
	<b>Notes :</b>				
	<b>Vendor to inspect the site and check probable route of shifting chillers inside the Plant Room (considering space constraints at site). The chiller will be tested at factory, dismantled and brought to the site. Reinstallation of chiller once it enters the Plant Room will be part of the vendor's scope</b>				
	<b>Factory Testing of ONE Chiller : Price to include Testing of Chillers at test points at factory on a AHRI/Eurovent certified test bed - one chiller will be tested at 100%, 75%, 50% &amp; 25% capacity (at design parameters). FIVE persons nominated by client will visit factory for the tests.</b>				
1.1.1	Ref. Capacity - 300 TR (Actual)	Nos.	1	5,800,000	5,800,000
	Chilled Water O/I Temp - 7 / 12°C				
	Cooling Water I/O Temp - 32/ 37°C				
	Chiller Fouling Factor - 0.0001 ft <sup>2</sup> *°F / Btu. hr.				
	Condenser Fouling Factor - 0.00025 ft <sup>2</sup> *°F / Btu. hr.				
	Chilled Water Flow - 801 USGPM				
	Condenser Water Flow - 1200 USGPM				
	Part load energy efficiency (AHRI IPLV) ≥ 9.50				
	Minimum COP at AHRI Relief ≥ 6.20				
	Sound Pressure Level @ 3m should not exceed 75 db(A)				
	Maximum ΔP across Evaporator ≤ 3.0 mwc				
	Maximum ΔP across Condenser ≤ 8.0 mwc				
<b>1.2</b>	<b>Supply / Installation / Testing / commissioning Restrained Spring Isolators Vibration Isolator Of Approved Make Required For Following Equipment &amp; In Rating.</b>				
	Spring elements shall have a lateral stiffness greater than 1.2 times the rated vertical stiffness and shall be designed to provide a minimum of 50% overload capacity. Non-welded spring elements shall be polyester powder coated, and shall have a 1000 hr rating when tested in accordance with ASTM B-117. Springs shall be deflections as per operating load design of equipment.				
1.2.1	Suitable for Chiller Operating Weight	Nos.	10	2,200	22,000
1.2.2	Suitable for Variable Primary & Cooling Water Pumps & their Operating Weight	Nos.	16	1,400	22,400

## CHILLER BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai

The work includes design, supply, erection, testing & commissioning of the complete Air-conditioning system.

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
<b>1.3</b>	Supply / Installation / Testing / commissioning of <b>Single Arch Rubber Bellow for Chillers and Pumps</b> complete with Control Guide Assembly				
1.3.1	Single Arch Rubber Bellow for Chillers and Pumps for 200mm Dia	Nos.	4	18,121	72,484
1.3.2	Single Arch Rubber Bellow for Chillers and Pumps for 250mm Dia	Nos.	10	22,400	224,000
	<b>SUB TOTAL - SECTION 'A' (Chillers)</b>			<b>Rs.</b>	<b>6,140,884</b>
<b>2.0</b>	<b>PUMPS - SECTION 'B'</b>				
<b>2.1</b>	<b>Primary Water Pumps (End Suction) with the following parameters :</b>				
	Supply, Installation, Testing and Commissioning of Back Pull Out, Primary Centrifugal pump sets with Cast Iron casing & bronze Impeller & Shaft seals with TEFC motor suitable for 3 Phase, 415 V + 10 %, 50 c/s, IE-3 motor rating, AC Power supply, Necessary Cabling & Earthing Strip, mounted on common base frame etc. The pump shall be duly insulated, as per specifications.				
	Technical Data :	Nos.	1	185,000	185,000
	Water Quantity - 801 GPM				
	Static Head - 18 meters				
	Speed - 1450 RPM				
	Impeller - Bronze				
	Approx. Motor Rating :15.0KW				
<b>2.2</b>	<b>Secondary Water Pumps (End Suction) with the following parameters :</b>				
	Supply, Installation, Testing and Commissioning of Back Pull Out, Secondary Centrifugal pump sets with Cast Iron casing & bronze Impeller & Shaft seals with TEFC motor suitable for 3 Phase, 415 V + 10 %, 50 c/s, IE- 3 motor rating, AC Power supply mounted on common base frame etc. The pump shall be duly insulated, Micro-processor based variable frequency drive for chilled water secondary pumps, indicated above, comprising of sensors, transmitters, logic controllers suitably interfaced with motor, variable frequency drive, all accessories, control wiring, downloaded programmable software. The system shall be complete in all respect and suitable for following ratings: as per specification.				
	Technical Data :	Nos.	2	330,000	660,000
	Water Quantity - 801 GPM				
	Static Head - 30 meters				
	Speed - 1450 RPM				
	Impeller - Bronze				
	Approx. Motor Rating :30.0KW				
<b>2.3</b>	<b>Condenser Water Pumps with the following parameters :</b>				
	Supply, Installation, Testing and Commissioning of Back Pull Out, <b>Condenser Water Centrifugal pump</b> sets with Cast Iron casing & bronze Impeller & Shaft seals with TEFC motor suitable for 3 Phase, 415 V + 10 %, 50 c/s, IE-3 motor rating, AC Power supply, Necessary Cabling & Earthing Strip, mounted on common base frame etc. The pump shall be duly insulated, as per specifications.				
	<b>Technical Data :</b>	Nos.	1	275,000	275,000
	Water Quantity - 1200 GPM				
	Static Head - 24 meters				
	Speed - 1450 RPM				

## CHILLER BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai

The work includes design, supply, erection, testing & commissioning of the complete Air-conditioning system.

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
	Impeller - Bronze				
	Approx. Motor Rating :30.0KW				
	<b>SUB TOTAL - SECTION 'B'</b>			<b>Rs.</b>	<b>1,120,000</b>
<b>3.0</b>	<b>CHILLED WATER PIPING, VALVES &amp; ACCESSORIES (INCLUDING INSULATION) - SECTION 'C'</b>				
<b>3.1</b>	<b>CHILLED WATER PIPING</b>				
	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastomeric nitrile rubber of minimum 45 Kg / cu m density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class 'O' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect. <b>Insulation of Chilled water piping With Nitrile Rubber (Pre Coated with synthetic rubber with polymeric covering reinforced with polyester Scrim)</b>				
	1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above.				
	Insulation shall be Closed Cell Elastomeric Nitrile Rubber with Density 40 to 55KG & Thermal conductivity shall not exceed 0.035 W/(m. K) at mean temperature of 0°C as per EN 12667.Covering material shall be of multiple layered laminate of polymeric material reinforced with scrim with a special UV protection. Mat FINISH, 380 ± 20 GSM as per ASTM D 646. &ASTM E 252 and have good UV resistance as per ISO 4892-2 Method A tested for 1000 Hrs, the tensile strength of >5 MPa in MD & CD as per ASTM D 638 – All INSULATION SHALL BE WETTED WITH MANUFACTURER.				
	Vendor to employ "Class A" welder for pipe welding. Contractor should submit the certificate for the same.				
a.	300mm dia. (32 mm thick insulation with Alu Chek mechanical protection)	Rmt	2	10,319	20,638
b.	200mm dia. (32 mm thick insulation with Alu Chek mechanical protection)	Rmt	35	7,178	251,230
c.	32mm dia. (19 mm thick insulation with Alu Chek mechanical protection)	Rmt	4	1,204	4,816
<b>3.3</b>	<b>Motorized ON/OFF Butterfly Valves</b>				
	Supplying, fixing, testing & commissioning of following sizes Motorised Butterfly valves with CI Body, SS Disc, O - ring and minimum PN-16 Rating, conforming to BS 5155, IS 13095, with IP-55 actuator, capable of accepting upto 10V DC, and upto 20mA electrical signal and providing similar transduced feedback output to control system as required.				
a.	200 mm NB	Nos.	1	63,603	63,603
<b>3.4</b>	<b>Butterfly valves</b>				

## CHILLER BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai

The work includes design, supply, erection, testing & commissioning of the complete Air-conditioning system.

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
	Supplying, fixing, testing and commissioning of following valves, strainers, gauges in the chilled water plumbing duly insulated to the same specifications as the connected piping and adequately supported as per specifications. BUTTERFLY VALVE (MANUAL) with CI body SS Disc, Nitrile Rubber Seal & O-Ring PN-16 pressure rating for chilled water/hot water circulation as specified above				
a.	200mm NB	Nos.	8	18,010	144,080
<b>3.5</b>	<b>Ball Valve for Drain</b>				
	Supply, installation, testing and commissioning of ball valves complete with heavy duty PN 16 bronze forged body, chrome plated bronze ball and control level etc. Insulation shall be as per the connected chilled water piping.				
a.	32mm NB	Nos.	2	4,000	8,000
b.	25mm NB	Nos.	2	3,200	6,400
<b>3.6</b>	<b>Manual Balancing Valves</b>				
	BALANCING VALVE WITH BUILT IN MEASURING FACILITY with CI Body flanged construction with EPDM coated disc with long pitch with protected out pipe insulation & PN 16 pressure rating for chilled / hot water circulation as specified.				
a.	200 mm NB	Nos.	1	80,043	80,043
<b>3.7</b>	<b>Y Strainers</b>				
	Y-STRAINER of Ductile CI Body flanged ends with stainless steel strainer for Chilled / Hot Water Circulation including insulation as specified.				
a.	200mm NB	Nos.	3	57,183	171,549
<b>3.9</b>	<b>Wafer Swing Check Valves</b>				
	NON - RETURN VALVE with dual plate of CI body SS plate vulcanized NBR Seal flanged end & PN 16 Pressure rating as specified.				
a.	200mm NB	Nos.	3	14,910	44,730
<b>3.11</b>	<b>Miscellaneous</b>				
a.	Supply, installation, testing & commissioning of 100mm dial type Pressure gauges with appropriate range and ball valve as per the specification. PG Syphon shall be painted with special corrosion prevention coating either in factory or at site.	Nos.	8	1,375	11,000
b.	Supply, installation, testing & commissioning of 100mm dial type Thermometer as per the specification. TG Syphon shall be painted with special corrosion prevention coating either in factory or at site.	Nos.	4	1,199	4,796
c.	Supply, installation, testing and commissioning of Automatic Air vents - 15/25mm dia.	Nos.	2	1,350	2,700
d.	Supply, installation, testing & commissioning of Test point for measuring Pressure and temperature.	Nos.	1	900	900
<b>Notes:</b>					
<b>1</b>	All valves and fittings/ fixtures shall be suitable for PN 16 rating.				
<b>2</b>	All motorized valves (butterfly, three / two way and ball valves) actuators shall be "BMS" compatible (should have potential free contacts).				
<b>3</b>	Vendor to employ "Class A" welder for pipe welding. Contractor should submit the certificate for the same.				



## CHILLER BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai

The work includes design, supply, erection, testing & commissioning of the complete Air-conditioning system.

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
	<b>SUB TOTAL - SECTION 'C'</b>			<b>Rs.</b>	<b>814,485</b>
<b>4.0</b>	<b>CONDENSER WATER PIPING AND VALVES - SECTION 'D'</b>				
<b>4.1</b>	<b>Condenser water piping With FRP Coating</b>				
	Supply, Installation, testing & Commissioning of MS "C" class ERW condenser water piping cut to required lengths & installed with welded joints including fittings such as bends, elbows, tees, reducers, rubber gaskets, factory fabricated wire rope based supports, as per specifications, and with vibration isolators, companion flanges, painting etc. Price shall also include pressure testing.				
	The thickness of pipes for 200NB & 250NB shall be 6.0mm & for 300NB shall be 6.3mm while pipes from 350NB & 400NB should be of 8 mm. The thickness of pipes above 400 NB shall be 10mm.				
a.	350 mm NB	Rmt	2	9,950	19,900
b.	200 mm NB	Rmt	5	5,550	27,750
c.	50 mm NB	Rmt	2	1,200	2,400
<b>4.2</b>	<b>Motorized ON/OFF Butterfly Valves</b>				
	Supplying, fixing, testing & commissioning of following sizes Motorised Butterfly valves with CI Body, SS Disc, O - ring and minimum PN-16 Rating, conforming to BS 5155, IS 13095, with IP-55 actuator, capable of accepting upto 10V DC, and upto 20mA electrical signal and providing similar transduced feedback output to control system as required.				
a.	200 mm NB	Nos.	1	63,603	63,603
<b>4.3</b>	<b>Butterfly valves</b>				
	Supplying, fixing, testing and commissioning of following valves, strainers, gauges in the chilled water plumbing duly insulated to the same specifications as the connected piping and adequately supported as per specifications. BUTTERFLY VALVE (MANUAL) with CI body SS Disc, Nitrile Rubber Seal & O-Ring PN-16 pressure rating for chilled water/hot water circulation as specified				
a.	200mm NB	Nos.	4	18,010	72,040
<b>4.4</b>	<b>Ball Valve for Drain</b>				
	Supply, installation, testing and commissioning of ball valves complete with heavy duty PN 16 bronze forged body, chrome plated bronze ball and control level etc. Insulation shall be as per the connected chilled water piping.				
a.	32mm NB	Nos.	1	4,000	4,000
<b>4.5</b>	<b>Manual Balancing Valves</b>				
	BALANCING VALVE WITH BUILT IN MEASURING FACILITY with CI Body flanged construction with EPDM coated disc with long pitch with protected out pipe insulation & PN 16 pressure rating for chilled / hot water circulation as specified.				
a.	200 mm NB	Nos.	1	80,043	80,043
<b>4.6</b>	<b>Y Strainers</b>				
	Y-STRAINER of Ductile CI Body flanged ends with stainless steel strainer for Chilled / Hot Water Circulation including insulation as specified.				
a.	200mm NB	Nos.	1	57,183	57,183



# CHILLER BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai

The work includes design, supply, erection, testing & commissioning of the complete Air-conditioning system.

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
<b>4.9</b>	<b>Wafer Swing Check Valves</b>				
	NON - RETURN VALVE wih dual plate of CI body SS plate vulcanized NBR Seal flanged end & PN 16 Presurre rating as specified.				
b.	200mm NB	Nos.	1	14,910	14,910
<b>4.10</b>	<b>Miscellaneous</b>				
a.	Supply, installation, testing & commissioning of 100mm dial type Pressure gauges with appropriate range and ball valve as per the specification. PG Syphon shall be painted with special corrosion prevention coating either in factory or at site.	Nos.	2	1,375	2,750
b.	Supply, installation, testing & commissioning of 100mm dial type Thermometer as per the specification. TG Syphon shall be painted with special corrosion prevention coating either in factory or at site.	Nos.	1	1,199	1,199
c.	Supply, installation, testing and commissioning of Automatic Air vents - 15/25mm dia.	Nos.	1	1,350	1,350
d.	Supply, installation, testing & commissioning of Test point for measuring Pressure and temperature.	Nos.	1	900	900
<b>Notes:</b>					
1	All valves and fittings/ fixtures shall be suitable for PN 16 rating.				
2	All motorized valves (butterfly, three / two way and ball valves) actuators shall be "BMS" compatible (should have potential free contacts).				
3	Vendor to employ "Class A" welder for pipe welding. Contractor should submit the certificate for the same.				
<b>SUB TOTAL - SECTION 'D'</b>				<b>Rs.</b>	<b>348,028</b>

**AHU BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**HVAC Scope Of Work**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
<b>1.0</b>	<b>CHILLED WATER PIPING, VALVES &amp; ACCESSORIES (INCLUDING INSULATION) - SECTION 'A'</b>				
<b>1.1</b>	<b>CHILLED WATER PIPING WITH INSULATION- SECTION 'A'</b>				
	<p>Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastomeric nitrile rubber of minimum 45 Kg / cu m density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class 'O' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect.</p> <p><b>Insulation of Chilled water piping With Nitrile Rubber (Pre Coated with synthetic rubber with polymeric covering reinforced with polyster Scrim)</b></p>				
	Note: The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above.				
	Insulation shall be Closed Cell Elastomeric Nitrile Rubber with Density 40 to 55KG & Thermal conductivity shall not exceed 0.035 W/(m. K) at mean temperature of 0°C as per EN 12667. Covering material shall be of multiple layered laminate of polymeric material reinforced with scrim with a special UV protection. Mat FINISH, 380 ± 20 GSM as per ASTM D 646. & ASTM E 252 and have good UV resistance as per ISO 4892-2 Method A tested for 1000 Hrs, the tensile strength of >5 MPa in MD & CD as per ASTM D 638 – All INSULATION SHALL BE WETTED WITH MANUFACTURER.				
	Vendor to employ "Class A" welder for pipe welding. Contractor should submit the certificate for the same.				
a.	80mm dia. (32 mm thick insulation)	Rmt	36	2,816	101,376
b.	65mm dia. (32 mm thick insulation)	Rmt	36	2,269	81,684
<b>1.2</b>	<b>CONDENSATE DRAIN PIPING</b>				
	Supply, installation, testing & commissioning of GI medium class (class B) piping complete with fittings such as bends, tees, elbows, reducers, companion flanges, factory fabricated supports, as per specifications, & painting etc.				
	Supply, Installation, testing and commissioning of Drain pipes insulation as 13mm thick closed cell nitrile rubber in pipe sections.				



**AHU BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**HVAC Scope Of Work**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
a.	40 mm NB	Rmt	78	900	70,200
a.	32 mm NB	Rmt	36	715	25,740
b.	25 mm NB	Rmt	78	560	43,680
<b>1.3</b>	<b>Butterfly valves</b>				
	Supplying, fixing, testing and commissioning of following valves, strainers, gauges in the chilled water plumbing duly insulated to the same specifications as the connected piping and adequately supported as per specifications. BUTTERFLY VALVE (MANUAL) with CI body SS Disc, Nitrile Rubber Seal & O-Ring PN-16 pressure rating for chilled water/hot eater circulation as specified				
a.	80mm NB	Nos.	6	5,573	33,438
b.	65mm NB	Nos.	6	5,210	31,260
<b>1.4</b>	<b>BALANCING VALVE WITH BUILT IN MEASURING FACILITY with CI Body flanged construction with EPDM coated disc with long pitch with protected out pipe insulation &amp; PN 16 pressure rating for chilled / hot water circulation as specified.</b>				
a.	80mm NB	Nos.	6	15,837	95,022
b.	65mm NB	Nos.	6	14,174	85,044
<b>1.5</b>	<b>2 Way Valve</b>				
	Supply, Installation, Testing and Commissioning of following sizes electronic, self-balancing, Pressure Independent Type Dynamic Balancing Valve (PIBCV) with integrated 2 way modulating control valve in a single body. The actuator shall be capable of accepting upto 10V DC and upto 20mA electric signal and shall provide similar transduced feedback output to control system. Maximum close off pressure shall not be less than 6 Bar for upto 50 mm valves and 7 Bar for 65 mm & above. Valves should have pressure rating of 25 Bar minimum				
	Notes : 1. All valves and fittings/fixtures shall be suitable for PN 16 rating. 2. All motorized valves (butterfly, three/two way and ball valves) actuators shall be "BMS" compatible (should have potential free contacts).				
a.	80 mm NB	Nos.	2	78,776	157,552
b.	65 mm NB	Nos.	2	61,895	123,790
<b>1.6</b>	<b>Ball Valve for Drain, Ductable &amp; Header Tapping</b>				
	Supply, installation, testing and commissioning of ball valves complete with heavy duty PN 16 bronze forged body, chrome plated bronze ball and control level etc. Insulation shall be as per the connected chilled water piping.				
a.	40mm NB	Nos.	4	6,685	26,740

**AHU BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**HVAC Scope Of Work**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
<b>1.7</b>	<b>Y Strainers</b>				
	Y-STRAINER of Ductile CI Body flanged ends with stainless steel strainer for Chilled / Hot Water Circulation including insulation as specified.				
a.	80mm NB	Nos.	2	11,364	22,728
b.	65mm NB	Nos.	2	9,155	18,310
<b>1.8</b>	<b>Miscellaneous</b>				
a.	Supply, installation, testing and commissioning of Automatic Air vents 15/25mm dia.	Nos.	4	2,075	8,300
b.	Providing and fixing in position the industrial type pressure gauges with gun metal / brass valves complete as required	Nos.	8	1,375	11,000
c.	Providing & fixing in position the mercury in glass industrial type thermometers.	Nos.	8	1,199	9,592
	<b>SUB TOTAL - SECTION 'A'</b>				<b>945,456</b>
<b>2.0</b>	<b>AIR HANDLING UNITS (SMART AHUs) - SECTION 'B'</b>				
<b>2.1</b>	<b>Air Handling Units &amp; Fan Coil Units (With Thermal Break Profile)</b>				
	<b>Supply / Installation / Testing / commissioning Of Floor Mounted Horizontal / Ceiling Suspended Integrated Air Handling Units (With EC Fans) of following specifications:</b>				
	Panel: 43mm +/- 2mm thick double skin sandwich panels with rockwool insulation of density 60 kg/cum, The sheet thickness shall be minimum 1.00 mm for the outer skin and 0.8 mm thickness for the inner skin of GI.				
	Filtration Section: It shall be provided with 2 stage combination filters, washable type of MERV-8 + MERV-13 filtration levels				
	Coil Section: Chilled Water/DX Coil 6/8 row deep constructed with Aluminium fins of minimum 0.11mm thickness and copper tubes of minimum 29 Gauge thickness. The coil section shall be equipped with factory fitted pressure independent control valves. The coil face velocity shall not exceed 2.5m/sec.				
	UV Lamp : AHU coil mounted UVGI system for maintaining Indoor Air Quality & Deep Coil Cleaning. The system must include UV modules with parabolic reflectors to ensure that no stray UV-C radiation is leaked. Calculated lamp watts per square foot of coil shall demonstrate greater than 7 watts per square foot of coil. The UVGI Equipment shall be listed to UL 1995 and UL 2043. UVGI system supplied must be in strict conformity with the specifications.				
	Drain Pan: Condensate drain pan shall be fabricated from 18G SS-304 powder coated, insulated with 19mm thick closed cell elastomeric insulation.				
	Fan Section : Backward Curved High Efficiency, Low Noise Plug type EC fans, Vibration isolators, Fan section access door, fire retardant canvass connection at fan suction and damper at the outlet of unit. Vision Window to be provided for the motor section.				



**AHU BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**HVAC Scope Of Work**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
	The selections for Ceiling mounted units shall be done considering the optimum Efficiency & Low Noise level with compact design of the units. The Noise Levels shall be $\leq 60$ dBA at 2m distance from the AHU casing perpendicular to air flow path and $\leq 64$ dBA at 1m from the mixing box & supply air damper in the air flow path.				
	The Filters & UVGI system for the cooling coil shall be supplied and installed by AHU manufacturer at factory only.				
	All AHUs/CSUs to be provided with Mixing Box with a provision to connect return air and fresh air from any direction as per drawing/site requirement				
	All AHUs/CSUs to be provided with Drain Pump as per drawing/site requirement				
	Terminal box with MCB, Control Box, auto/manual selector switch & internal power/ control wiring to be provided by the AHU manufacturer. Potentiometer also to be provided for manual controlling of the EC Fan.				
	Electrical starter Panel with Auto / Manual switch and incomer power terminal.				
	Instrumentation Kit to be provided to give out the following option: 1> Supply air temperature 2> Return air temperature 3> Chilled water in temperature 4> Chilled water out temperature 5> DP switch across filter for filter clog 6> The AHU/CSUs that have multiple Incomers, multiple Fans, multiple Coils connected to multiple VRF ODUs, should have a control logic inbuilt to ensure that the units rotate the Fans and ODUs, send alarms in case of a failure and simultaneously start the standby Fan/ODU (as the case may be)				
	Controller module with RS 485 port compatible with BMS, on board MODBUS protocol with touch screen to display following: 1> EC fan operation status 2> Chilled water valve operation status 3> AHU power consumption 4> Chilled water in/out Temp 5> Common Alarm Controller shall also have fire trip alarm to shut AHU in case of signal from fire panel				
	Quoted cost shall include control & starter panel, transformer for Energy valve, copper armoured cable from control panel to motor, copper earthing, copper armoured control cabling and hook-up to its controller. The control & starter panel shall be complete with necessary control, including OLP, SPP, ON/OFF push buttons with ON indications, 2 nos. non polarised NO-NC contacts tripping on signal from Fire Dampers / Fire Alarm Panel.				
	<b>Cost of In-Built VFD, In-Built Panel (for all units), Power and Control Cabling (for all units) to be included</b>				

**AHU BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**HVAC Scope Of Work**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
	ISP $\leq$ 50 mm				
	<b>The AHU selection shall be :</b>				
	AHU TR / CFM / ESP (mm Wg) / Type / Area it Serves				
2.1.1	40.0TR / 18400cfm / 32 / Floor Mounted AHU (A-WING)-1st Floor <b>Existing AHU of 54.0 TR / 20000 cfm to be utilized</b>	Nos.	1	-	-
2.1.2	31.0TR / 17600cfm / 32 / Floor Mounted AHU (B-WING)-1st Floor <b>Existing AHU of 45.0 TR / 16000 cfm to be utilized</b>	Nos.	1	-	-
2.1.3	32.0TR / 18000cfm / 32 / Floor Mounted AHU (A-WING)-2nd Floor <b>NEW AHU</b>	Nos.	1	1,000,000	1,000,000
2.1.4	36.0TR / 20000cfm / 32 / Floor Mounted AHU (B-WING)-2nd Floor <b>NEW AHU</b>	Nos.	1	1,200,000	1,200,000
2.1.5	34.0TR / 18000cfm / 32 / Floor Mounted AHU (A-WING)-3rd Floor <b>NEW AHU</b>	Nos.	1	1,000,000	1,000,000
2.1.6	36.0TR / 20000cfm / 32 / Floor Mounted AHU (B-WING)-3rd Floor <b>NEW AHU</b>	Nos.	1	1,200,000	1,200,000
2.1.7	45.0TR / 20000cfm / 32 / Floor Mounted AHU (A-WING)-4th Floor <b>Existing AHU of 54.0 TR / 20000 cfm to be utilized</b>	Nos.	1	-	-
2.1.8	42.0TR / 18750cfm / 32 / Floor Mounted AHU (B-WING)-4th Floor <b>Existing AHU of 54.0 TR / 20000 cfm to be utilized</b>	Nos.	1	-	-
	<b>SUB TOTAL - SECTION 'B'</b>				<b>4,400,000</b>
<b>3.0</b>	<b>SHEET METAL WORKS - SECTION 'C'</b>				
<b>3.1</b>	Supply, Installation, Testing, Commissioning of FACTORY / SITE FABRICATED rectangular sheet metal ducts, as per specifications detailed in tender, made of Class VIII GP sheet as per SMACNA Standard for medium pressure air flow with MS angle/TDF flanges, supports, anchor fasteners, food grade gaskets and RTV sealant in accordance with the approved shop drawings. It is mandatory to use factory fabricated ducts for minimum 85% of the ducting system. Use of Site fabricated ducts should be restricted to only 'to suit' pieces.				
	Cold rolled sheets continuous galvanized sheet steel with zinc coating as per class VIII conforming to IS:277-1962 (revised)(where ever specified) of LFQ (Lock Forming Quality) grade. Galvanizing shall be of 120gms/sq. m (Total coating on both sides)				
	The fabrication of the ducting system for air-conditioning & Ventilation shall confirm to SMACNA-1995 standards ("HVAC Duct Construction Standards - Metal and Flexible - Second Edition - 1995"-SMACNA).				
<b>3.1.1</b>	<b>G.I. Sheet Metal Duct (Rectangular)</b>				
a.	1.0mm Ducting - 20 G	m <sup>2</sup>	165	1,588	262,020



**AHU BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**HVAC Scope Of Work**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
b.	0.8mm Ducting - 22 G	m <sup>2</sup>	750	1,452	1,089,000
c.	0.63mm Ducting - 24 G	m <sup>2</sup>	3,476	1,242	4,317,192
<b>3.2</b>	Supply, installation, testing and commissioning of following sizes of <b>Insulated flexible Round Ducting</b> with its matching supports and other accessories.				
a.	400mm dia.	Rmt	3	1,350	4,050
b.	350mm dia.	Rmt	11	1,100	12,100
c.	300mm dia.	Rmt	18	820	14,760
d.	250mm dia.	Rmt	34	680	23,120
e.	200mm dia.	Rmt	-	550	-
<b>3.3</b>	Supply, installation, testing & commissioning of <b>Z-Piece</b> for Return Air with internal acoustic insulation				-
a.	450 x 450	Nos.	29	13,250	384,250
b.	300 x 300	Nos.	34	11,000	374,000
<b>3.4</b>	<b>Grilles &amp; Diffusers</b>				
	Supply, installation, testing and commissioning of following sizes of				
	Aluminium extruded powder coated continuous grilles with 4 side flanges (colour to match as per architects requirements) In extruded aluminium construction, powder coated. One way/ 2 way fixed deflection - 15deg. with end flanges as required and as shown in the drawings.				
	Note : If required Contractor should blank off the extra portion of grille without additional cost and provide deflection of 0 deg to 45 deg without extra cost				
a.	Supply, installation and adjusting of Non Vision transfer grilles in extruded aluminium comprising of a non vision door grille on two sides and complete with sliding frame on the opposing side. The assemble shall be suitable for the door thickness as per site conditions. The colour shall match the interior requirements.	m <sup>2</sup>	10	10,600	106,000
b.	Supplying & fixing of powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers as per specifications.	m <sup>2</sup>	240	10,471	2,513,040
c.	Al. Opposed Blade Grille Dampers.	m <sup>2</sup>	38	7,975	303,050
					-
<b>3.5</b>	Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, screws linkages, flanges etc, as per specifications.	m <sup>2</sup>	11	8,103	89,133
<b>3.6</b>	<b>Supply Air Diffusers for Modular / Gypsum</b>				

**AHU BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**HVAC Scope Of Work**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
	Supply, installation, testing and commissioning of Al. extruded powder coated Supply Air diffuser with inbuilt butterfly damper & insulated plenum box with Suitable for 600mm x 600mm Gypsum ceiling / Modular Ceiling Provide damper arrangement. Damper should be aluminium powder coated, multiple flap type. Overall size given below. Also with 16 G GSS Butterfly dampers (spigot) with brass bush and operating handle. The damper shall have multiple controlling option and should have provision to lock at any point. The damper should be suitable to the actual CFM. The 4-way square supply air terminal should be in Al powder coated construction with easily removable central core & 4-way uniform air distribution. Factory Installed G.I plenum black painted from inside shall be mounted with a circular neck to accept the insulated flexible duct from side. (Diffuser Shall be with full size 24"x24" Louver with OBD and plenum with insulation/ required neck size connection & as per approved sample. Qty shall be as per approved layout.)				
	600 x 600mm grid ceiling type with VCD and 32mm nitrile Insulated Plenum with Following Neck Sizes :				
a.	300 x 300 (Square Diffuser) with VCD	Nos.	16	3,235	51,760
<b>3.7</b>	<b>RETURN AIR Diffusers</b>				
	Supply, installation, testing and commissioning of Al. extruded powder coated return Air diffuser without damper flush type and removable core construction. Overall size given below.				
	600 x 600mm grid ceiling type without VCD and 32mm nitrile Insulated Plenum (Square Diffuser)				
a.	300 x 300 (Square Diffuser) without VCD	Nos.	12	2,650	31,800
<b>3.8</b>	Supplying, Fixing, testing and commissioning of fire dampers in supply air duct/main branch and return air path as and where required of required sizes i/c control wiring, the damper shall be motorized and spring return so as to close the damper in the event of power failure automatically and open the same in case of power being restored. The spring return action shall be inbuilt mechanism and not externally mounted. The damper shall also be closed in the event of fire signal complete as required and as per specifications.				
a.	Fire dampers	m <sup>2</sup>	25	12,258	306,450
b.	Actuators	Nos.	37	11,440	423,280
<b>3.9</b>	<b>Double Canvass Connections</b>				
a.	Supply, installation, testing and commissioning of Flexible double Canvass Connections for AHU, FCU & FAN. Supply, fabrication & installation of double canvass (fire retardant) flexible connection as per drawings & specifications.	Nos.	18	2,600	46,800

**AHU BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**HVAC Scope Of Work**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
3.10	<p><b>Variable Air Volume Terminal Unit</b></p> <p>Supplying, installing, testing and commissioning of BYPASS TYPE VAV ( Variable Air volume Terminal units ), Supply, Assembly, Installation, Testing, Balancing &amp; Commissioning of VAV boxes SA duct constructed of 22 G GI sheet with Interior acoustic lining of Open Cell Armasound /K-Fonic Nitrile Rubber /Foam acoustic insulation- with Thermal conductivity 0.045 W/m deg.K / density 140~180 kg/m3. A circular/ oval damper with elliptical shape should have proper sealing &amp; good linearity. The VAV box shall be comprising of sheet metal, insulated box with circular opening(s) &amp; shall be factory connected to the main unit. The circular opening(s) shall be centered on the unit to accept round ductwork connections. The VAV box shall be complete with Inlet collar constructed of 22-gage galvanized steel sized to fit standard rectangular duct. An integral multiple-point, averaging flow-sensing ring shall be provided with primary airflow measurement within +/-5% of unit cataloged airflow. Damper is 22- gage galvanized steel. The VAVs shall be able to set-back at min 22.5% of the rated air flow. The damper blade assembly to be connected to a cast zinc shaft supported by self-lubricating bearings. The shaft shall be cast with a damper position indicator. The valve assembly shall include a mechanical stop to prevent over-stroking. At 3.0 in. wg air valve leakage does not exceed 6% of maximum airflow. The VAV unit shall be complete and consist of DP, temperature sensor (Digital Thermostat), controller for receiving Temp. &amp; DP Signal, motorised actuator etc. complete with mounting flange, power cabling &amp; independently supported of the duct. The VAV controller shall be capable of handling signal from temperature sensor and occupancy sensor (dual type) (Fixed occupancy ventilation setpoint, Scheduled (or otherwise calculated) ventilation setpoint,</p>				

**AHU BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**HVAC Scope Of Work**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
	Occupancy sensor to switch between normal and reduced ventilation) VAVs shall be with digital thermostat. HVAC Vendor to co-ordinate with Electrical contractor for Occupancy Sensor signal. Electrical vendor shall provide Occupancy sensor & its output cable upto VAV, HVAC vendor to terminate the same in VAV. HVAC vendor to provide required hardware / accessories to accept signal from Occupancy sensor to VAV. The inlet & outlet connections shall be suitable for connecting in between the supply ducts. The VAVs shall be with End flanges to connect to the ducts. VAVs shall be looped in a daisy chain link with a common controller(s) as per Controller capabilities and be connected to the BMS thru' a router. The VAV vendor shall include necessary integrator, convertor, software, hardware, license's etc. as applicable for the VAVs to interact & be controllable thru' central BMS. Necessary protocol for connecting with MODBUS, BACNET etc. shall also be included. The VAVs quantities are indicative as per scheme drawing & shall vary based on the approved shop drawing. The VAVs shall be ordered as per approved shop drawing & confirmation with the consultant. The VAV Box assembly comprising of all above as a finished product duly calibrated for required airflow qtls per VAV should be despatched from the factory. Calibration certificates to be provided alongwith the Delivery of the VAVs. Calibration of VAVs shall be factory inspected.				
	COSTING OF VAV SHOULD BE INCLUSIVE OF THERMOSTAT WITH COMMUNICATION CABLE				
<b>3.10.1</b>	<b>For Rectangular Ducting Module</b>				
	Heavy duty 22 gauge casing construction with rectangular inlet & discharge				
	Standard rectangular cone sizes for duct connection with minimum accessories.				
	Internally lined casing utilizing open cell elastomeric nitrile foam rubber, fibre free, super silent & micro ban resistant acoustic insulation.				
	Round damper blade constructed of elastomeric gasket sandwiched between two heavy duty 22 gauge galvanized steel plates, resulting low air leakage.				
	High quality industrial polymer bearings for shaft featuring position indicator for easy identification of damper angle.				
	Standard flanges on both side for duct connection				
a.	CFM Range 300 - 500	Nos.	30	24,600	738,000
b.	CFM Range 600 - 800	Nos.	14	29,900	418,600
c.	CFM Range 1000-1500	Nos.	5	36,250	181,250
d.	CFM Range 1600 - 2000	Nos.	1	40,000	40,000
e.	CFM Range 2000 - 2500	Nos.	2	47,500	95,000
f.	CFM Range 2500 - 3000	Nos.	3	62,000	186,000
g.	CFM Range 3000 - 3500	Nos.	2	64,200	128,400
h.	CFM Range 3500 - 4000	Nos.	1	66,000	66,000

**AHU BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**HVAC Scope Of Work**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
3.10.2	Router	Nos.	1	95,000	95,000
3.10.3	Co2 Sensors	Nos.	58	25,000	1,450,000
	<b>SUB TOTAL - SECTION 'C'</b>				<b>13,750,055</b>
4.0	<b>THERMAL &amp; ACOUSTIC INSULATION - SECTION 'D'</b>				
4.1	Supplying and fixing of 19 mm thickness duly laminated aluminum foil of mat finish closed cell Nitrile rubber (Class "O") insulation on existing duct after applying suitable adhesive for Nitrile rubber. The joints shall be sealed with 50 mm wide and 3mm thick self adhesive nitrile rubber tape insulation				
a.	19mm thick	m <sup>2</sup>	4,245	867	3,680,415
4.2	Acoustic Insulation For Main Ducting Supply installation of 15 mm thick open cell elastometric nitrile rubber foam fire retardant class "1", as per the approved shop drawings/specifications.density 150+/-10 Kg/m3	m <sup>2</sup>	166	1,200	199,200
4.3	Supplying, fixing acoustic lining on wall and ceiling of AHU rooms with 50mm thick, density 32 kg/cu.m resin bonded glass fiber insulation friction fixed in 610mm x 610 mm frame work made of 25X50X50X50X25 mm made out of 0.6mm thick GI sheet U shaped channel and covered with reinforced fiber glass tissue and finished with 0.80 mm perforated aluminium sheet etc. complete as required and as per specifications.  The insulation shall have fire performance such that it passes class "0" as per BS-476 Part 6 and Class "1" as per BS-476 Part 7 for surface spread of flame as per BS Standards and B-1 as per DIN Standards.	m <sup>2</sup>	845	1,413	1,193,985
4.4	Under deck Insulation material shall be Closed Cell 25MM Elastomeric Nitrile Rubber. Density of Material shall be between 40 to 60 Kg/m <sup>3</sup> As Per Specification.	m <sup>2</sup>	260	780	202,800
	<b>SUB TOTAL - SECTION 'D'</b>				<b>5,276,400</b>
5.0	<b>VENTILATION WORK - SECTION 'E'</b>				
5.1	Supply / Installation / Testing & Commissioning of <b>Inline type Exhaust Air Units</b> of following capacities : CFM / ESP(mm) / Type / Area it Serves				
a.	700 CFM / ESP 15mm / Inline / Toilet	Nos.	16	15,600	249,600
5.2	Supply / Installation / Testing & Commissioning of <b>Cassette Type Ceiling Mounted Exhaust Air Fan</b>				
a.	150 CFM / Toilet	Nos.	5	4,200	21,000
b.	100 CFM / Toilet	Nos.	3	3,600	10,800

**AHU BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**HVAC Scope Of Work**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (in Rs.)
<b>5.3</b>	<b>Disc Valve (Round)</b>				
	Supply, installation, testing and commissioning of Al. extruded powder coated Supply Air Disc Valve (Round). Supply, installation and adjusting of disc valves suitable for exhausting toilet foul air, comprising of an adjustable centre cone and coupling sleeve made of Aluminium sheet duly epoxy painted with approved colour. The disc valve shall be fitted with a galvanised steel installation frame and the sleeve shall incorporate a foam-rubber gasket for airtight sealing. The centre cone should be adjustable for balancing and with a locking arrangement to maintain the desired flow rate.				
	Face size given below.				
a.	150 Ø	Nos.	112	1,100	123,200
	<b>SUB TOTAL - SECTION 'E'</b>				<b>404,600</b>
	<b>GRAND TOTAL - SECTIONS 'A' to 'E'</b>				<b>24,776,511</b>



**VRF BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai BILL  
OF QUANTITIES FOR VRF SYSTEM**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (Rs.)
	Designing, engineering, fabricating and supplying, unloading, shifting, lifting of the following equipment / material and erection, testing and commissioning of the HVAC (Air-cooled VRF System) as under:				
a	Indoor units comprising of combination of Cassette, Hi-Wall, Ductable Units, (Hi-wall units shall be mounted on side walls/ partition walls. Cassette and Ductable Units shall be ceiling suspended.)				
b	Electrical power supply – Single / 3-phase near each of the IDUs (Indoor Units) and 3-phase for Outdoor units shall be provided by Electrical Contractor. Further cabling and earthing by HVAC contractor.				
c	Controls – remote, indoors, inside the occupied area, System should be BMS compatible and as specified.				
d	Designing, engineering, fabricating and supplying, unloading, shifting, lifting of the following equipment / material and erection, testing and commissioning of the HVAC Low side works as under:				
1.0	<b>SITC of VRF ODU / IDU and Other Accessories</b>				
1.1	<b>VRF Out-Door Units</b>				
	Supply Installation, Testing & Commissioning of modular type Variable Refrigerant Flow/Variable Refrigerant Volume air cooled Outdoor units suitable for cooling and heating, having all hermetically sealed inverter type Scroll Compressor(s), minimum two compressors for above 14 HP modules, microprocessor based Controller, top discharge type condensing unit(s), with R 410 A Refrigerant, vibration isolators, with suitable foundation etc. complete as required. The unit shall deliver the rated capacity at AHRI Conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V +/- 10%, 3 Phase, 50Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5 .				
	<b>16,415 Rs. Per HP</b>				
a	20 HP (Top discharge)	Nos.	2	393,960	787,920
b	16 HP (Top discharge)	Nos.	1	315,168	315,168
C	4 HP (Side discharge) for hub rooms	Nos.	2	78,792	157,584
1.2	<b>VRF of In-Door Units</b>				



**VRF BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai BILL  
OF QUANTITIES FOR VRF SYSTEM**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (Rs.)
	Supply, installation, testing and commissioning of following minimum capacity 4-way flow VRV/VRF <b>Cassette Type Indoor ceiling mounted unit</b> equipped with synthetic washable media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX Copper coil, electronic expansion valve, outer cabinet, drain pump, grill, necessary supports, vibration isolation, cord less remote control etc., suitable for operation on single phase 230 V $\pm$ 10%, 50Hz AC supply, complete, as required. The unit shall have automatic force shut down 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.				
1.2.1	<b>4-Way Cassette type (950 X 950)</b>				
a	2.00 TR	Nos.	1	36,961	36,961
b	2.80 TR	Nos.	14	38,418	537,852
c	4.00 TR	Nos.	2	40,777	81,554
	Supply, installation, testing and commissioning of following minimum capacity VRV/VRF <b>High wall type Indoor unit</b> equipped with washable synthetic media-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, outer cabinet, cord less remote control, drain pan, necessary accessories etc., suitable for operation on 230 V $\pm$ 10%, 50Hz, single phase 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 conditionsof27 Degree C DB and 19 Degree C WB temperature				
1.2.2	<b>Hi-Wall Unit</b>				
a	1.65 TR	Nos.	4	26,095	104,380
1.3	REFNET Joints				
a	Supply of All REFNET Joints	Nos.	16	2,500	40,000
	<b>SUB - TOTAL (Installation of VRF ODU / IDU and Accessories)</b>			<b>Rs.</b>	<b>2,061,419</b>
2.0	Refrigerant Piping				
2.1	Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF 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 specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required :				
a	28.58mm dia (OD) (Hard drawn) with tube thickness 1.2mm with19 mm thick insulation	RM	110	1,330	146,300



**VRF BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai BILL  
OF QUANTITIES FOR VRF SYSTEM**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (Rs.)
b	19mm dia (OD) (Hard drawn) with tube thickness 1.2mm with 19 mm thick insulation	RM	135	848	114,480
c	15.86mm dia (OD) (Soft drawn) with tube thickness 1.2mm with 19 mm thick insulation	RM	238	706	168,028
d	12.7mm dia (OD) (Soft drawn) with tube thickness 1.2mm with 19 mm thick insulation	RM	131	559	73,229
e	9.5mm dia (OD) (Soft drawn) with tube thickness 1.2mm with 19 mm thick insulation	RM	302	397	119,894
f	6.4mm dia (OD) (Soft drawn) with tube thickness 1.2mm with 19 mm thick insulation	RM	95	294	27,930
2.2	Refrigerant Charging				
a	Supply, Installation, Testing and Commissioning charges along with Topping-up of Refrigerant	Kg.	116	950	110,200
	<b>SUB - TOTAL (REFRIGERANT PIPING)</b>			<b>Rs.</b>	<b>760,061</b>
3.0	Frame Work				
3.1	Supply, fabrication and installation, Testing and Commissioning of MS base frame for outdoor units complete with epoxy painting, vibration isolation pads, supports, hangers, railing, brackets etc.				
	Note: For constructions approved by Architect/ Consultant. Apply 2 coats of epoxy primer and 2 coats of finish painting (black paint) as approved by Architect. Stand to be made as per site conditions.	Kg	225	160	36,000
3.2	Mighty foot Outdoor Unit stands - Supply, Installation, testing & commissioning of VRV/VRF ODU supports shall consist of a galvanised steel frame supported by adjustable leg and feet assemblies. The frame dimensions should be designed to take the weight with minimal deflection, and should be manufactured from hot dip galvanized. The feet shall be 300mm square made from Nylon. These shall have mats underneath. The leg assembly should be adjustable upto 100mm so that the frame can accommodate unevenness of the roof surface. The supplier to give guaranty against rust for minimum 5years.				
a	20 HP (Top discharge)	Sets	2	16,000	32,000
b	16 HP (Top discharge)	Sets	1	16,000	16,000
b	4 HP (Side discharge) for hub rooms	Sets	2	6,000	12,000
3.30	Outdoor Units COWL piece with rain protection louvers				
a	Supply, installation, testing and commissioning of outdoor connection with rain protection louvers, GI wire mesh, Bird screen, cowl & dampers.	Sets	6	2,200	13,200
	<b>SUB - TOTAL (FRAME WORK)</b>			<b>Rs.</b>	<b>109,200</b>
4.0	<b>Electrical Work</b>				
	Electrical contractor shall terminate power in individual switch socket for each IDU as per requirement. For VRF ODU incoming power shall be provided at the PDB / isolator, from there to each VRF ODU the cabling shall be carried out by HVAC contractor.				



**VRF BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai BILL  
OF QUANTITIES FOR VRF SYSTEM**

Sr.	Description	Unit	Total Qty.	Rate (Rs.)	Amount (Rs.)
<b>4.1</b>	<b>POWER CABLES FOR ODU</b>				
	Supply, laying, dressing, termination, testing & commissioning 1100 V grade, aluminium/copper conductor, PVC insulated, steel wire/strip armoured, PVC sheathed power and control cables as per specs. of following sizes, to be laid on trays including clamping, as per specs.				
a	4c x 16 sqmm CU Armoured Cable	RM	30	1,160	34,800
a	4c x 4 sqmm CU Armoured Cable	RM	20	820	16,400
<b>4.2</b>	<b>POWER CABLES FOR IDU</b>				
	Supply, laying, dressing, termination, testing & commissioning 1100 V grade, aluminium/copper conductor, PVC insulated, steel wire/strip armoured, PVC sheathed power and control cables as per specs. of following sizes, to be laid on trays including clamping, as per specs.				
a	3c x 2.5 sqmm YRY cable	RM	126	260	32,760
<b>4.3</b>	<b>CONTROL CABLES FOR BETWEEN IDU AND THEIR REMOTE</b>				
	Supply & Installation of All control cables between indoor and their Remote laid in PVC pipe and clamped.				
a	4c x 2.5 sqmm YRY cable	RM	758	375	284,250
<b>4.4</b>	<b>Earthing</b>				
	Supply, installation, testing, commissioning laying & connection of Earthing of following sizes.				
a	8 swg GI Wire	RM	30	50	1,500
	<b>SUB - TOTAL (ELECTRICAL WORK)</b>			<b>Rs.</b>	<b>369,710</b>

**DX BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai BILL  
OF QUANTITIES FOR DX SYSTEM**

Sr.	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
<b>1.0</b>	<b>Supply, Installation, Testing &amp; Commissioning of DX Units:</b>				
<b>1.1</b>	<b>Air-Cooled Hi-Wall Split Units</b>				
	<b>Supply, Installation, Testing &amp; Commissioning</b> of Air-cooled type complete with the following components-				
	Indoor evaporating unit comprising of cooling coils, insulated sand-watched drain tray, 20 Micron HDPE washable filters, blower, electrical junction box etc.				
	Outdoor condensing unit comprising of hermetic rotary compressors, condenser coils, propeller/axial fans pressure switches/cut-outs etc.				
	Inter-connected refrigerating piping of copper duly insulated with EXPANDED POLYETHYLENE SECTIONS				
	Complete electrical power wiring of Al. & control wiring of copper required from indoor and outdoor units. Earthing of the complete system with 8 G G.I. wire.				
	Electrical Panel will be complete with necessary starters, fuses, switches, timers, over-load relays, contactors, push button, and indicating lamps, single phasing PREVENTOR etc. and ALSO WITH REMOTE CONTROL WITH CORDING.				
	The panel should have 1 No. potential free contactor to connect with central fire detection system. The panel should also have voltage scanner to ensure stabilized power input to the machine.				
	All outdoors units shall be mounted on MS angle base frame structure duly black painted with synthetic epoxy paint.				
	Complete clamping and saddling of cabling work and refrigerant piping, covered with PVC conduiting.				
	<b>Note : Rates to include all above deliverables</b>				
	<b>Unit shall be Inverter Type with minimum of 3 Star Rating (R-22 NOT ALLOWED)</b>				
<b>1.1.1</b>	<b>DX 4-Way Compact Cassette Unit (600 X600)</b>				
a	1.5 TR	Nos.	1	41,000	41,000
<b>1.4</b>	Supply & Installation Refrigerant Piping of with Insulation between indoor & outdoor unit for both liquid & hot gas line of following capacities :				
a	1.5 TR	RM	50	800	40,000
	<b>Sub-Total</b>			<b>Rs.</b>	<b>81,000</b>
<b>2.0</b>	<b>Indigenous Work</b>				
<b>2.1</b>	<b>Supply and Installation control cable (between ODU &amp; IDU)</b>				
a	4c x 2.5 sq.mm	RM	38	400	15,200
<b>2.2</b>	<b>REFRIGERANT CHARGING</b>				
a	Supply, Installation, Testing & Commissioning Charges along with Topping up of Refrigerant	kg	4	1,000	4,000
<b>2.3</b>	<b>MS Fabricated Stand for DX outdoor units duly coated as per site condition</b>	Nos.	1	2,250	2,250



**DX BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai BILL  
OF QUANTITIES FOR DX SYSTEM**

Sr.	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	Sub-Total			Rs.	21,450
	Grand Total - Unitary System			Rs.	102,450

All testing equipment shall be calibrated & vendors shall submit the calibration certificates on the day prior to the tests.

**CRAC SYSTEM BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai**  
**BILL OF QUANTITIES FOR CRAC SYSTEM**

Sr.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	<b>Air Cooled DX type Computer Room Air conditioners (CRAC) units</b>				
	Supply, installation testing & commissioning of Air Cooled DX type CRAC units with advanced Industrial standard & operating on higher return air temperatures & high ambient conditions of 43°C				
	<b>Evaporator Unit Shall consist of</b>				
	Doubled-skinned constructions manufactured from CRCA externally painted with epoxy-polyester powder paint and insulated of 25mm thickness with 40 kg/m <sup>3</sup> of density Mounted on the unit frame. Only front access to be provided for the machines maintenance no side & back Access				
	Motorized back Draft Damper				
	Inlet Filter sections with G4 Filters				
	Return Air Temperature & RH Sensors				
	Evaporator Cooling Coil sections with Hydrophilic coating Cooling coil, EXV & HP & LP transducer, Insulated SS Condensate drain pan with U trap & flexible hose to connect to drain point below the machines.				
	Variable capacity Inverter / Digital Scroll Type Stepless modulation compressor R410A refrigerant modulation range from 10% to 100%				
	In-Floor Fiber glass corrosion resistant Blade fan with EC motor to deliver below mentioned air quantity at given external static				
	Microprocessor control panel with 320 x 240 dot matrix digital display screen, programmable control & recording unit complete with intelligent 16 digit 2 line alpha numeric display, function keys, cursor keys, free programmable keys, multi colour LEDS, inscription fields				
	The Display panel shall display date, time, actual & set values, operating conditions, signal faults, collective faults limiting values				
	Units should be able to work for fixed supply air logic to modulate the compressor capacity. Units should be also connected to Cold Aisle remote sensors for taking the temperature feedback from the top of the racks at multiple places to regulate the fan for required airflow in Room. Each unit should be equipped with 1 Supply and 3 Remote Sensors (including RA Sensor at unit top)				
	Required all field devices for controlling and monitoring of units				
	Unit Shall be supply with Single 415±10% V, 50 Hz AC Main Input Raw Power Supply.				
	Supply air temperature Sensors & water leak detection Sensor				
	Powder coated Indoor Unit Mounting stand with level adjustment Feature.				
	<b>Air Cooled Condenser Unit Shall consist of</b>				
	Air Cooled condenser should be Single skid mount construction made out of using stainless steel connectors mounted on Outdoor Floor Stands with height adjustable system with height of 600mm. The material of construction must be heavy gauge MS angle / Channels supports along with corrosion resistant painting.				
	Coil shall be copper tube with aluminium fins with Hydrophilic / epoxy coating for anti-corrosion				
	Axial AC Fan with fan speed controller & with IP 54 Local isolator switch				
	Powder coated Indoor Unit Mounting stand with level adjustment Feature.				

**CRAC SYSTEM BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai BILL  
OF QUANTITIES FOR CRAC SYSTEM**

Sr.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	All listed accessories including all accessories should be part of scope. Necessary BMS integration software & Hardware should be included under the scope of supply.				
	Refrigerant piping between indoor & outdoor unit would be in the scope of PAC Vendor & to be laid in 16 gauge cable trays.				
	Please ensure are listed accessories are considered in the quoted price				
	Note: Hydrophilic corrosion treatment to fins for DX Indoor & out door units should be apart of supply.				
a	Actual capacity to be considered (at Ambient Temperature of 43°C ) as under : <b>(Server Room 1)</b> Sensible Capacity/Unit : 84KW Total Capacity/Unit : 90KW Air Qty/Unit : 12100cfm External static of 100 Pa with all listed accessories as specified under technical section (Top Ducted Discharge as shown in Layout)	Nos.	3	1,584,600	4,753,800
b	Actual capacity to be considered (at Ambient Temperature of 43°C ) as under : <b>(Server Room 2)</b> Sensible Capacity/Unit : 92KW Total Capacity/Unit : 100KW Air Qty/Unit : 13300cfm External static of 100 Pa with all listed accessories as specified under technical section (Top Ducted Discharge as shown in Layout)	Nos.	2	1,766,250	3,532,500
	Design Room Temperature - 23±1°C Vendor to consider all type of possible deration due to pipe length, Indoor air temp, Ambient temp, etc in their design and to provide the required rated capacity considering all type of deration				
2	Supply & Installation of 16G Hard Drawn Copper Piping between Indoor & Out Door for both liquid & hot gas line of Suitable Size protected with 13mm thick (Only for the exposed area) Insulation sleeve & further protected with GC cloth, rate including all cable trays made out of 16G, fitting & accessories. Copper Piping should be suitably supported at regular intervals. Hilti / Hitech supports should be used along with Seismic supports to be provision Please be noted that the installation of copper piping should be executed preferably by manufacturers authorized personnel. Rate shall inclusive of making wall opening Provision of sleeves / protective shield to be provide while passing through the wall or shaft. for the services laying & required scaffolding.				
a	90KW	RMT	180	4,175	751,500
b	100KW	RMT	150	4,300	645,000
3	Electrical cabling along with MS Conduit as per OEM requirement between Evaporator and condenser. Main cable will be terminated at panel of PAC Unit. Between condenser and evaporator, low side vendor has to do the cabling. Distance between evaporator and condenser would be same as mentioned for copper piping. Cable should be multistrand CU Armoured FRLS cable with DC gland & Cu Lugs termination. Gland make - Comet, Cu Lugs - Dowell/Comet	RMT	371	815	302,365



**CRAC SYSTEM BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai BILL  
OF QUANTITIES FOR CRAC SYSTEM**

Sr.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
4	HDG 500mm Ladder cable tray with 16G covers for the piping.	RMT	165	1,425	235,125
5	Necessary Refrigerant required for commissioning of the units	Kg	167	1,130	188,710
6	Software / Hardware for Integration with BMS System and Sequence control for equal running hours. Provision should be there to bring on redundant unit in case of failure of any one unit.	Lot	2	8,000	16,000
7	Motorised Fire Dampers with actuators (500 x 500 Damper) & its control & Power cabling	Nos.	5	31,200	156,000
8	Indoor Floor Stands with height adjustable system with Required Plenum height. The material of construction must be heavy gauge MS angle / Channels supports along with corrosion resistant power coated Paint.				
a	90KW (Height of 600mm)	Nos.	3	16,675	50,025
b	100KW (Height of 600mm)	Nos.	2	16,675	33,350
9	MS stand for housing Outdoor unit as per approved mounting arrangement shall be scope of supply. Outdoor Floor Stands with height adjustable system with height of 600mm. The material of construction must be heavy gauge MS angle / Channels supports along with corrosion resistant painting.				
a	90KW	Set	3	8,000	24,000
b	100KW	Set	2	8,000	16,000
11	Supply, installation, testing and balancing of Heavy-duty Mild Steel (3mm thick) finished with powder coating (70-90 micron) constructed floor grill with opposed blade volume control damper. Floor air grills should have 80% opening 600x600mm (with volume control Dampers). The floor grill should be able to 1500KG on the total area of tile, the deflection should be 0.7mm as attached and can produce 2000 CFM.	Nos.	19	7,500	142,500
13	Providing, fixing, jointing and testing in position the following heavy class (Class C) G.I. pipes conforming to IS:1239 cut to required lengths including all necessary fittings (All fittings shall confirm to IS:1879 - Part 1 to 10) such as bends, tees, unions, reducers, flanges & plugs etc. Threading, jointing, and making proper connections. Fixing/ supporting the pipes & fittings at wall/ ceiling level supported by M.S. clamps, fastener, hangers etc, as per specification. The supports will be primer coated & finally painted with 2 coats of synthetic enamel. Exposed pipes will also be provided with two coats of synthetic enamel paint over a coat of primer, including painting of legends with direction arrow. (PAC drain piping up to drain Point). Cost Shall be including with minimum 9 mm thick Class "O" insulation.				
a	50mm Dia	RMT	20	1,250	25,000
b	32mm Dia	RMT	30	915	27,450
c	20 NB Drain Cock with 100mm length barrel nipple for PAC Drain connection	Nos.	5	3,900	19,500



**CRAC SYSTEM BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC, Mumbai BILL  
OF QUANTITIES FOR CRAC SYSTEM**

Sr.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
14	Supply and installation of FLOOR INSULATION material shall be Closed Cell Elastomeric Nitrile Rubber Class 'O', with lamination of chemically treated woven glass cloth. The thermal conductivity of insulation material shall not exceed 0.035 W/(m.°K) at a mean temperature of 0 Deg. C as per EN ISO 8497. Moisture Diffusion Resistance Factor or 'μ' value of insulation material shall be a minimum of 7,000 without any external barrier as per EN 13469. The density of insulation material shall be between 40 to 55 Kg/m³. The insulation material shall withstand the maximum surface temperature of +105°C and the minimum surface temperature of 0°C as per EN 14707. The insulation material shall be installed as per the manufacturer's recommendation. The adhesive used for the insulation shall be strictly approved & recommended by the manufacturer. All longitudinal and transverse joints shall be sealed by providing 50mm wide fiberglass cloth laminated tape & it should be 3mm thick as per manufacturer recommendations				
a	32mm thick insulation	m²	175	1,200	210,000
	<b>TOTAL (Project Cost)</b>				<b>11,128,825</b>

ELECTRICAL AND PA WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC		
SUMMARY SHEET		
ITEM NO.	ITEM DESCRIPTION	Amount
1	TOTAL FOR SECTION A - PANELS AND DISTRIBUTION BOARDS	9,409,429.00
2	TOTAL FOR SECTION B - LT CABLES, CABLE TRAYS, FLOOR TRUNKING	13,368,904.00
3	TOTAL FOR SECTION C - EARTHING	395,070.00
4	TOTAL FOR SECTION D - POINT WIRING	12,134,920.00
5	TOTAL FOR SECTION E - LIGHTING FIXTURES	8,474,186.00
6	TOTAL FOR SECTION F - PUBLIC ADDRESSAL SYSTEM	787,500.00
A	TOTAL (SECTION 1+2+3+4+5+6)	44,570,009.00
G	Comprehensive Annual Maintenance Contract for UPS Systems	
	150 Kva - 2 Nos	
1	1st year (Post Warranty of 2 years)	3,00,000.00
2	2nd year	3,15,000.00
3	3rd year	3,30,750.00
4	4th year	3,47,287.00
5	5th year	3,64,651.00
	TOTAL (SECTION G) *	16,57,688.00
* This amount is indicative and is not included in the tender cost but the said amount will be paid after successful completion of Warranty of 2 years		

**ELECTRICAL AND PA WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
	<b>PART I - ELECTRICAL SYSTEM</b>					
<b>1</b>	<b>SECTION A - PANELS AND DISTRIBUTION BOARDS</b>					
	<b>LT PANELS FOR LIGHTING AND RAW POWER</b>					
1.1.1	<p>Supplying, installation, testing and commissioning of wall mounted MS cubicle (CRCA sheet) type non-compartmentalized/ as well as compartmentalized, standard factory fabricated Distribution Board Enclosure with front panel of sheet steel structure of minimum 2 mm thickness and all other parts of minimum 1.6 mm thickness. The thickness of removable cable gland plates shall be minimum of 3 mm and the cabinet shall be epoxy powder coated in RAL 7032 (Siemens Grey) shade from inside and outside. The panel shall be fabricated only after the approval of GA drawings (furnished by contractor) by the Architect/ Consultant and after inspection and testing at factory before dispatch. The fabrication of panel shall be in compliance with IEC 61439. The panel shall include all accessories/ switchgears as detailed below alongwith necessary internal wiring, fixing arrangement to connect with main incomer and terminations etc. complete in all respect.</p> <p>The Panel shall be provided with CT's, phase indication lamps, load manager with kWH and RS485 port, Surge Arrestor, all required accessories and switchgear in complete etc. SWITCHGEAR MAKES SCHNEIDER / L&amp; T / ABB / LEGRAND</p> <p>NOTE :- ALL PANEL SHALL BE IP-52 AND HAVE FORM 3B along with Co2 Flooding system in each panel. AS PER ENCLOSED SLD SW-955-ELEC -03 PANEL NO 3 TYPICAL PANEL FOR FIRST , SECOND , THRID AND FOURTH FLOOR (LIGHTING AND RAW POWER PANEL )</p>	PLASMA ENGINEERING / ARROW ENGINEERS / VDHK PANELS	Each	4	140,000.00	560,000.00
	<b>HVAC PANEL</b>					
1.1.2	<p>Supplying, installation, testing and commissioning of wall mounted MS cubicle (CRCA sheet) type non-compartmentalized/ as well as compartmentalized, standard factory fabricated Distribution Board Enclosure with front panel of sheet steel structure of minimum 2 mm thickness and all other parts of minimum 1.6 mm thickness. The thickness of removable cable gland plates shall be minimum of 3 mm and the cabinet shall be epoxy powder coated in RAL 7032 (Siemens Grey) shade from inside and outside. The panel shall be fabricated only after the approval of GA drawings (furnished by contractor) by the Architect/ Consultant and after inspection and testing at factory before dispatch. The fabrication of panel shall be in compliance with IEC 61439. The panel shall include all accessories/ switchgears as detailed below alongwith necessary internal wiring, fixing arrangement to connect with main incomer and terminations etc. complete in all respect. SWITCHGEAR MAKES SCHNEIDER / L&amp; T / ABB / LEGRAND</p> <p>The Panel shall be provided with CT's, phase indication lamps, load manager with kWH and RS485 port, Surge Arrestor, all required accessories in complete and switchgear, etc NOTE :- ALL PANEL SHALL BE IP-52 AND HAVE FORM 3B along with Co2 Flooding system in each panel.</p> <p>AS PER ENCLOSED SLD SW-955-ELEC -03, panel no 1 (ADDITIONAL UNIT HVAC PANEL )</p>	PLASMA ENGINEERING / ARROW ENGINEERS / VDHK PANELS	Each	1	219,715.00	219,715.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
	<b>UPS PANEL 1</b>					
1.1.3	<p>Supplying, installation, testing and commissioning of wall mounted MS cubicle (CRCA sheet) type non-compartmentalized/ as well as compartmentalized, standard factory fabricated Distribution Board Enclosure with front panel of sheet steel structure of minimum 2 mm thickness and all other parts of minimum 1.6 mm thickness. The thickness of removable cable gland plates shall be minimum of 3 mm and the cabinet shall be epoxy powder coated in RAL 7032 (Siemens Grey) shade from inside and outside. The panel shall be fabricated only after the approval of GA drawings (furnished by contractor) by the Architect/ Consultant and after inspection and testing at factory before dispatch. The fabrication of panel shall be in compliance with IEC 61439. The panel shall include all accessories/ switchgears as detailed below alongwith necessary internal wiring, fixing arrangement to connect with main incomer and terminations etc. complete in all respect. The panels shall be fabricated by Central Power Research Institute (C.P.R.I.) approved vendor only.</p> <p>The Panel shall be provided with CT's, phase indication lamps, load manager with kWh and RS485 port, Surge Arrestor, all required accessories in complete and switchgear etc.</p> <p>NOTE :- ALL PANEL SHALL BE IP-52 AND HAVE FORM 3B along with Co2 Flooding system.</p> <p><b>AS PER ENCLOSED SLD SW-955-ELEC -02 ,FIRST FLOOR -PANEL NO 1 , 2 &amp; SECOND FLOOR:-PANEL NO 1&amp;2 (UPS PANEL) , THIRD FLOOR PANEL NO 1 , 2 &amp; FOURTH FLOOR PANEL NO 1 &amp; 2</b></p> <p>incomer</p>	PLASMA ENGINEERING / ARROW ENGINEERS / VDHK PANELS	Each	8	151,200.00	1,209,600.00
	<b>AHU PANEL</b>					
1.1.4	<p>Supplying, installation, testing and commissioning of wall mounted MS cubicle (CRCA sheet) type non-compartmentalized/ as well as compartmentalized, standard factory fabricated Distribution Board Enclosure with front panel of sheet steel structure of minimum 2 mm thickness and all other parts of minimum 1.6 mm thickness. The thickness of removable cable gland plates shall be minimum of 3 mm and the cabinet shall be epoxy powder coated in RAL 7032 (Siemens Grey) shade from inside and outside. The panel shall be fabricated only after the approval of GA drawings (furnished by contractor) by the Architect/ Consultant and after inspection and testing at factory before dispatch. The fabrication of panel shall be in compliance with IEC 61439. The panel shall include all accessories/ switchgears as detailed below alongwith necessary internal wiring, fixing arrangement to connect with main incomer and terminations etc. complete in all respect. SWITCHGEAR MAKES SCHNEIDER / L&amp; T / ABB / LEGRAND</p> <p>The Panel shall be provided with CT's, phase indication lamps, load manager with kWh and RS485 port, Surge Arrestor, all required accessories in complete and switchgear etc.</p> <p>NOTE :- ALL PANEL SHALL BE IP-52 AND HAVE FORM 3B along with Co2 Flooding system.</p> <p><b>AS PER ENCLOSED SLD SW-955-ELEC -03 TYPICAL AHU PANEL PANEL NO 2</b></p>	PLASMA ENGINEERING / ARROW ENGINEERS / VDHK PANELS	Each	4	151,200.00	604,800.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
	<b>DEALING UPS INPUT PANEL</b>					
1.1.5	<p>Supplying, installation, testing and commissioning of wall mounted MS cubicle (CRCA sheet) type non-compartmentalized/ as well as compartmentalized, standard factory fabricated Distribution Board Enclosure with front panel of sheet steel structure of minimum 2 mm thickness and all other parts of minimum 1.6 mm thickness. The thickness of removable cable gland plates shall be minimum of 3 mm and the cabinet shall be epoxy powder coated in RAL 7032 (Siemens Grey) shade from inside and outside. The panel shall be fabricated only after the approval of GA drawings (furnished by contractor) by the Architect/ Consultant and after inspection and testing at factory before dispatch. The fabrication of panel shall be in compliance with IEC 61439. The panel shall include all accessories/ switchgears as detailed below alongwith necessary internal wiring, fixing arrangement to connect with main incomer and terminations etc. complete in all respect. The panels shall be fabricated by Central Power Research Institute (C.P.R.I.) approved vendor only.</p> <p>The Panel shall be provided with CT's, phase indication lamps, load manager with kWH and RS485 port, Surge Arrestor, all required accessories in complete and switchgear etc.</p> <p>NOTE :- ALL PANEL SHALL BE IP-52 AND HAVE FORM 3B along with Co2 Flooding system.</p> <p><b>AS PER ENCLOSED SLD SW-955-ELEC -03 PANEL NO 5</b></p>	PLASMA ENGINEERING / ARROW ENGINEERS / VDHK PANELS	Each	1	150,000.00	150,000.00
	<b>DEALING UPS OUT PUT PANEL</b>					
1.1.6	<p>Supplying, installation, testing and commissioning of wall mounted MS cubicle (CRCA sheet) type non-compartmentalized/ as well as compartmentalized, standard factory fabricated Distribution Board Enclosure with front panel of sheet steel structure of minimum 2 mm thickness and all other parts of minimum 1.6 mm thickness. The thickness of removable cable gland plates shall be minimum of 3 mm and the cabinet shall be epoxy powder coated in RAL 7032 (Siemens Grey) shade from inside and outside. The panel shall be fabricated only after the approval of GA drawings (furnished by contractor) by the Architect/ Consultant and after inspection and testing at factory before dispatch. The fabrication of panel shall be in compliance with IEC 61439. The panel shall include all accessories/ switchgears as detailed below alongwith necessary internal wiring, fixing arrangement to connect with main incomer and terminations etc. complete in all respect. SWITCHGEAR MAKES SCHNEIDER / L&amp; T / ABB</p> <p>The Panel shall be provided with CT's, phase indication lamps, load manager with kWH and RS485 port, Surge Arrestor, all required accessories in complete and switchgear etc.</p> <p>NOTE :- ALL PANEL SHALL BE IP-52 AND HAVE FORM 3B along with Co2 Flooding system.</p> <p><b>AS PER ENCLOSED SLD SW-955-ELEC -03 , PANEL NO 6</b></p>	PLASMA ENGINEERING / ARROW ENGINEERS / VDHK PANELS	Each	1	190,000.00	190,000.00
1.2	Supplying and fixing of following ways surface/ recess mounting, <b>vertical type</b> , 415 V, <b>TPN MCCB Distribution Board</b> of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer ) as required. <b>[VTPN DB]</b>					



ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
1.2.1	12 way (1 MCCB + 24A SP MCB ), Double door	Legrand/ Schneider/ L&T/ ABB/Honeywell	Each	4	35,000.00	1,40,000.00
1.3	Supplying and fixing following way, <b>horizontal type</b> three pole and neutral, sheet steel, <b>MCB Distribution Board</b> , 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.					
1.3.1	6 way (4 + 18), Double door	Legrand/ Schneider/ L&T/ ABB/Honeywell	Each	8	5,200.00	41,600.00
1.3.2	12 way (4 + 36), Double door	Legrand/ Schneider/ ABB/Honeywell	Each	12	8,650.00	103,800.00
1.4	Supplying and fixing following way, single pole and neutral, sheet steel, <b>MCB Distribution Board</b> , 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. [For Inverter supply]					
1.4.1	8 way, Double door	Legrand/ Schneider/ L&T/ ABB/Honeywell	Each	4	2,650.00	10,600.00
1.4.2	12 way, Double door	Legrand/ Schneider/ L&T/ ABB/Honeywell	Each	8	2,400.00	19,200.00
1.5	Supplying and fixing 5 A to 32 A rating, 240/ 415 V, 10 kA, " <b>C</b> " <b>curve, Triple Pole and Neutral MCB</b> suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as required. <b>[For Lighting and Ventilation]</b>	Legrand/ Schneider/ L&T/ ABB/Honeywell	Each	16	1,290.00	20,640.00
1.6	Supplying and fixing 5 A to 32 A rating, 240/ 415 V, 10 kA, " <b>C</b> " <b>curve, Four Pole MCB</b> suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as required. <b>[For Power]</b>	Legrand/ Schneider/ L&T/ ABB/Honeywell	Each	24	1,735.00	41,640.00
1.7	Supplying and fixing 40 A to 63 A rating, 240/ 415 V, 10 kA, " <b>C</b> " <b>curve, Triple Pole MCB</b> suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as required.	Legrand/ Schneider/ L&T/ ABB/Honeywell	Each	12	1,975.00	23,700.00
1.8	Supplying and fixing 40 A to 63 A rating, 240/ 415 V, 10 kA, " <b>D</b> " <b>curve, FOUR Pole MCB</b> suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as required. <b>[For UPS]</b>	Legrand/ Schneider/ L&T/ ABB/Honeywell	Each	24	2,500.00	60,000.00
1.9	Supplying, fixing and commissioning <b>2 pole RCBO</b> (residual current breaker with overcurrent short circuit 10 kA and earth leakage protection), with 30/100 mA sensitivity and having capacity of 6/10/16/20/25A <b>(For UPS DB )</b> .	Legrand/ Schneider/ L&T/ ABB/Honeywell	Each	72	2,500.00	180,000.00



ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
1.10	Supplying and fixing following rating, <b>2 pole 240 V, 25 A, RCCB</b> (residual current circuit breaker), having a sensitivity current 30/100 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. <b>( for ventilation, lighting and Raw power DBs)</b>	Legrand/ Schneider/ L&T/ ABB/Honeywell	Each	96	2,980.00	286,080.00
1.11	Supplying and fixing 5 A to 32 A rating, 240/ 415 V, 10 kA, <b>"C" curve, SP MCB</b> suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as required. [For Lighting and Power]	Legrand/ Schneider/ L&K/ ABB/Honeywell	Each	720	265.00	190,800.00
1.12	Supplying and fixing 6 A to 32 A rating, 240/ 415 V, 10 kA, <b>"D" curve, SP MCB</b> suitable for inductive load in the existing MCB DB complete with connections, testing and commissioning etc. as required. [For UPS]	Legrand/ Schneider/ L&K/ ABB/Honeywell	Each	702	335.00	235,170.00
1.13	Providing printed <b>Instruction Chart</b> for treating persons suffering from electric shock, printed in English and Marathi and duly laminated.	As Approved by Architect/ Consultant/ SEBI	Each	8	635.00	5,080.00
1.14	Supplying and fixing PVC synthetic elastomer electrically <b>Insulating Mat</b> with Class A insulation conforming to IS:15652-2006 and CPRI tested having 2 mm thickness up to 3.3 kV (in panel room only)		sq.mt.	120	5,140.00	616,800.00
1.15	Supplying standard <b>First Aid Box</b> with necessary antiseptic cream, medicine for use on wounds due burn, crepe bandage, gauge bandage, medicated ready to use bandage (Band-aid) adhesive tape for medicinal use, scissors, anti-septic solution (Savlon or similar) etc. (All above contents shall be standard makes)	As Approved by Architect/ Consultant/ SEBI	Each	8	2,230.00	17,840.00
1.16	Providing and fixing <b>M.V. Danger Notice Plate</b> of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	As Approved by Architect/ Consultant/ SEBI	Each	16	1,120.00	17,920.00
1.17	Supply, unloading, shifting, installation, testing & commissioning of 150 kVA UPS System along with following items: - Supply, unloading, shifting, installation, testing & commissioning of 150kVA Modular Hotswappable UPS System with following features: - • Fully Digital, twin DSP controlled Design with 150 kVA Frame UPS and each Module rating of 25 to 50 kVA/ kw only Hot-swappable design • Rated at unity output power factor to deliver more active power • Handle leading power factor loads without KW derating under specified conditions • On-Line Double Conversion IGBT based PWM Inverter • Wide input voltage tolerance (+20/-20%) • Wide input frequency range of 45Hz to 65Hz • High overload capability of static bypass • Capability to handle: High crest factor loads • Adjustable frequency synchronization window up to 6% in the static bypass • Network protocols SNMP • Overload capability of the UPS: 110% full load for 60 minutes 125% full load for 10 minutes 150% full load for 1 minutes * ups parallel card		EACH	2	3,121,500.00	6,243,000.00
	Dry contact cards for UPS		Nos	2	Included	

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
	DC Breaker / Isolator for battery isolation		Nos	2	Included	
	External Output side Isolation Transformer K13 rated Copper with C/O Bypass Switch		Nos	2	Included	
	Battery Banks comprising of LITHNIUM 12V Battery block with 10 minutes backup at 0.9 PF with 10% Design Margin (Minimum VAH -- ----) The bank of batteres shall comprise of required numbers of batteries connected in series. <b>Battery Make : DELTA / SAMSUNG Battery compliant on module</b>		Set	2		
	Battery rack to house batteries of MS powder coated along with Battery interlink uninyvin cables.		Set	3	Included	
	UPS internal common wrap around I/O Cabinet with busbars of 150 KW Rating with provision for Aluminium armoured cable entry and exit from top. Vendor to consider cabling from I/O Panel to UPS and UPS to I/O Panel (each 15 meter) in their scope (In-built or external) External I/O Panel required with following Provision near UPS Panel: - 1) 2 No x 630 Amp 4P Isolator 2) 2 No x 630 Amp 4P Isolator 3) 1 No x 630 Amp 4P Super bypass Isolator Note: 1. Make of Switchgear: Latest model of Schneider / Siemens / L&T / ABB / Eaton 2. Busbar: Al with 0.8 A/sq.mm current density or Cu with 1.4A/sq.mm current density		Set	1		
	UPS to Battery Cable and Accessories upto 20 mtr		Set	2	Included	
	THIRD PARTY Factory inspection Test Report : Tests shall be carried out and certified by the manufacturer and by the agencies specified here under a) SAMEER b) ETDC c) ERTL d) CPRI e) ERDA Vadodara f) IIT / NIT /Govt. Engg College.  The testing of UPS systems at the cost of UPS vendor, who will be required to arrange for all the requisite variacs, metters, required load / load bed etc and carry out the tests through vendor's personnel in the presence of Bank's officials.		JOB	1	Included	
	The supplier shall have facilities to carry out all the tests at factory will have to be satisfactorily carried out before acceptance.  If the UPS does not confirm to specifications either during factory test or at site, the Bank reserves the right to reject the same.  The successful tenderer shall then have to remove the same at no extra cost to the Bank at his cost from the site and supply a new UPS System conforming to the tender specifications.		JOB	1	Included	
	<b>TOTAL FOR SECTION A - PANELS AND DISTRIBUTION BOARDS</b>					<b>1,11,87,985.00</b>
<b>2</b>	<b>SECTION B - LT CABLES, CABLE TRAYS, FLOOR TRUNKING</b>					
2.1	Supplying, erecting and terminating XLPE armoured cable <b>3½ core 95 sq. mm. Aluminium conductor</b> with continuous 5.48 sq. mm. (12 SWG) Copper earth wire (2 runs) complete erected with glands and lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specifications.	RR Kabel/ KEI/ HAVELLS	Meter	280	700.00	196,000.00
2.2	Supplying, erecting and terminating XLPE armoured cable <b>3½ core 300 sq. mm. Aluminium conductor</b> with continuous 5.48 sq. mm. (12 SWG) Copper earth wire (2 runs) complete erected with glands and lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specifications.	RR Kabel/ KEI/ HAVELLS / POLYCAB	Meter	100	1,300.00	130,000.00
2.2.1	Supplying, erecting and terminating XLPE armoured cable <b>1 core 150 sq. mm. Copper flexible cable</b>		Meter	300	2,800.00	840,000.00
2.2.2	Supplying, erecting and terminating XLPE armoured cable <b>3½ core 150 sq. mm. Aluminium conductor</b> with continuous 5.48 sq. mm. (12 SWG) Copper earth wire (2 runs) complete erected with glands and lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specifications.		Meter	450	850.00	382,500.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
2.3	Supplying, erecting and terminating XLPE armoured cable <b>3½ core 25 sq. mm. Aluminium conductor</b> with continuous 5.48 sq. mm. (12 SWG) Copper earth wire (2 runs) complete erected with glands and lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specifications.	RR Kabel/ KEI/ HAVELLS / POLYCAB	Meter	1310	550.00	720,500.00
2.4	Supplying, erecting and terminating XLPE armoured cable <b>4 core 16 sq. mm. Copper conductor</b> continuous 5.48 sq. mm. (12 SWG) Copper earth wire (2 runs) complete erected with glands and lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specifications.	RR Kabel/ KEI/ HAVELLS / POLYCAB	Meter	360	850.00	306,000.00
2.5	Supplying, erecting and terminating XLPE armoured cable <b>4 core 10 sq. mm. Copper conductor</b> continuous 5.48 sq. mm. (12 SWG) Copper earth wire (2 runs) complete erected with glands and lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specifications.	RR Kabel/ KEI/ HAVELLS / POLYCAB	Meter	400	750.00	300,000.00
2.6	Supplying, erecting and terminating XLPE armoured cable <b>4 core 6 sq. mm. Copper conductor</b> continuous 3.24 sq. mm. (14 SWG) Copper earth wire (2 runs) complete erected with glands and lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specifications.	RR Kabel/ KEI/ HAVELLS / POLYCAB	Meter	480	600.00	288,000.00
2.7	Supplying, erecting and terminating XLPE armoured cable <b>3 core 4 sq. mm. Copper conductor</b> continuous 3.24 sq. mm. (14 SWG) Copper earth wire (2 runs) complete erected with glands and lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specifications.	RR Kabel/ KEI/ HAVELLS / POLYCAB	Meter	480	439.00	210,720.00
2.8	Supplying and installing following size of perforated <b>Hot Dipped Galvanised Iron Cable Tray</b> (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts and nuts, etc. as required	RR Kabel/ KEI/ HAVELLS / POLYCAB				
2.8.1	150 mm width X 50 mm depth X 1.6 mm thickness		Meter	200	450.00	90,000.00
2.8.2	300 mm width X 50 mm depth X 1.6 mm thickness		Meter	600	900.00	540,000.00
2.9	Supplying and installing following size of perforated hot dipped galvanised iron cable tray " <b>Bends</b> " (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts and nuts, etc. as required.	Profab/ INDIANA/ UNIVERSAL				
2.9.1	150 mm width X 50 mm depth X 1.6 mm thickness		Each	20	550.00	11,000.00
2.9.2	300 mm width X 50 mm depth X 1.6 mm thickness		Each	40	1,000.00	40,000.00
2.10	Supplying and installing following size of perforated hot dipped galvanised iron cable tray " <b>Tee</b> " (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts and nuts, etc. as required.	Profab/ INDIANA/ UNIVERSAL				
2.10.1	150 mm width X 50 mm depth X 1.6 mm thickness		Each	20	650.00	13,000.00
2.10.2	300 mm width X 50 mm depth X 1.6 mm thickness		Each	20	1,200.00	24,000.00
2.11	Supplying and installing following size of perforated hot dipped galvanised iron cable tray " <b>Cross Member</b> " (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts and nuts, etc as required	Profab/ INDIANA/ UNIVERSAL				
2.11.1	300 mm width X 50 mm depth X 1.6 mm thickness		Each	8	1,500.00	12,000.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
2.12	Supplying and installing following size of perforated hot dipped galvanised iron cable tray " <b>Reducer</b> " (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts and nuts, etc. as required	Profab/ INDIANA/ UNIVERSAL				
2.12.1	300 mm width X 50 mm depth X 1.6 mm thickness		Each	16	1,500.00	12,000.00
2.13	Supplying, laying and fixing of following size Under Floor Trunking made of <b>275 GSM Zinc coated galvanised steel sheet</b> of minimum 1.6 mm thick, specially treated corrosion proof rectangular profiles for high tensile strength, top and bottom plates are double folded and welded together to the full height of the tracks to give the required rigidity and including cutting floor chases as per requirement and mending good the damages clearing the debris as per requirement all complete and also <b>Trunking should be factory fabricated and alteration/modification will not be accepted.</b>  All joints between two trunking shall be fixed and sealed with standard jointing sleeves as per manufacturer's recommendations					
2.13.1	300 mm (width) x 38 mm (height) x 1.6 mm (thick) - 3 compartment <b>Raceways</b> (for power/ data/ voice).	MK-Honeywell/ Legrand/ OBO	Meter	1800	1,950.00	35,10,000.00
2.13.2	100mmx40mm Aluminium Section, 1.6mm Thk.		Meter	400	425.00	170,000.00
2.13.3	82mmx40mm Aluminium Section, 1.6 mm Thk.		Meter	400	350.00	140,000.00
2.14	Supplying, laying and fixing of following size <b>Access Box</b> having body made of Galvanised Steel Sheet and top cover made of SS304 stainless steel					
2.14.1	350 mm x 350 mm x 90-110 mm (height) (3 compartment) <b>Access Box</b>	MK-Honeywell/ Legrand/ OBO	Each	360	6,555.00	2,359,800.00
2.15	Supplying, laying and fixing of following sizes Galvanised Steel Sheet (Body + Cover) <b>Junction Box</b>					
2.15.1	350 mm x 350 mm x 60-75 mm (height) (3 compartment) <b>Junction Box</b>	MK-Honeywell/ Legrand/ OBO	Each	100	4,970.00	4,97,000.00
2.16	Supplying and installing of following size Powder Coated Hot Dipped Galvanised Iron wall trunking with cover for Distribution Board Wiring with all accessories and complete as required.					
2.16.1	100 mmX 100mm X 1.6 mm thick	Profab/ INDIANA/ UNIVERSAL	Meter	160	1,300.00	2,08,000.00
2.17	<b>Cable Cubby</b>  Supply, installation testing and commissioning of Cable Cubby having modular, configurable, and furniture-mountable enclosure that shall support and including supply and fixing of 2 nos. 6A universal Power Sockets, cable retraction modules of HDMI and USB-C with pull out length of 1.5m or better, USB-C and USB-A charging ports, 2nos. RJ45 module and any applicable filler module or blank plates etc as per site requirements.  The plate shall be flexible to allow the installation, removal, or replacement of cables.	AMX/ KRAMER/ CRESTRON/ EXTRON	Each	38	10,000.00	3,80,000.00
2.18	Supply laying & End termination of RG 6 co-axial cable in existing conduit as per the site condition and all accessories	Polycab/ RR Kabel/ Finolex/ Havells	Meter	1000	100.00	1,00,000.00
<b>TOTAL FOR SECTION B - LT CABLES, CABLE TRAYS, FLOOR TRUNKING</b>						<b>1,14,92,520.00</b>

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
3	<b>SECTION C - EARTHING</b>					
3.1	<b>GI Earth Strip</b> Providing and fixing 25 mm X 3 mm G.I. strip on surface or in recess for connections etc. as required.		Meter	280	200.00	56,000.00
3.2	<b>Copper Earth Strip</b> Providing and fixing following Copper strip on surface or in recess for connections etc. as required.					
3.2.1	25 mm X 3 mm		Meter	50	1,775.00	88,750.00
3.3	<b>GI Earth Wire</b> Supplying and erecting GI earth wire of high purity of different sizes used for earthing or any other purposes on wall with necessary G. I. Clamps fixed on wall/ cable/ conduit with screws in an approved manner (8 SWG GI wire)		Meter	800	150.00	120,000.00
3.4	<b>Single Core Copper Earth Cable</b> Supply, installation, connection and commissioning of following sizes of 1.1 KV grade PVC flexible Cu conductor cable including 20 mm PVC heavy duty pipe etc					
3.4.1	1C X 6 sq mm Cu PVC Flexible cable for Earthing		Meter	640	115.00	73,600.00
3.5	<b>Copper Earth Bus</b> Supplying and installation of 300 x 25 x 6 mm Copper Earth bus with MS enclosure etc including fixing accessories as required in complete		Meter	4	2,500.00	10,000.00
3.6	<b>GI Earth Bonding Conductor</b> Supplying and laying of GI Earth Bonding conductor of 2.5 Sqmm cross section alongwith prelaidd Steel GI Conduits including fixing accessories as required in complete.		Meter	600	80.00	48,000.00
	<b>TOTAL FOR SECTION C - EARTHING</b>					<b>3,96,350.00</b>





ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
4	<b>SECTION D - POINT WIRING</b>					
4.1	<b>Light Point from DB</b>  Supply, installation, testing and commissioning of point wiring for lights / fans / plug points / bell point etc. in G.I conduit of suitable diameter, surface or recessed mounted complete with junction box, joints, bends, switch box, cover plate etc. including 1.1 KV grade 2 x 2.5 sq. mm.Copper multi-stranded PVC insulated LSZH wires alongwith 1 x 1.5 sq. mm. Copper multi-stranded PVC insulated LSZH wires as earth wire with existing MCB inside DB. The work shall be completed with all material including steel GI conduit, flexible metal conduit labour, chiselling, making good surface etc. in cordination with civil agency complying with IE rules, regulations, standards and local supply authority requirements.  All accessories shall be of same make and type as that of conduit.  [Primary point from MCB DB to first light point/ occupancy sensor/ call bell point/ fan point]	Wirings -RR Kabel/ KEI/ Havells	Point	230	3,200.00	736,000.00
4.2	<b>Primary Light Point</b>  Supply, installation, testing and commissioning of point wiring for lights / fans / plug points / bell point etc. in G.I conduit of suitable diameter, surface or recessed mounted complete with junction box, joints, bends, switch box, cover plate etc. including 1.1 KV grade 2 x 2.5 sq. mm.Copper multi-stranded PVC insulated LSZH wires alongwith 1 x 1.5 sq. mm. Copper multi-stranded PVC insulated LSZH wires as earth wire alongwith modular surface/recessed mounted switch. The work shall be completed with all material,including steel GI conduit, flexible conduit, labour, chiselling, making good surface etc. in cordination with civil agency complying with IE rules, regulations, standards and local supply authority requirements.  All accessories shall be of same make and type as that of conduit.  [Primary point from switch board to first light point/ occupancy sensor/ call bell point/ fan point]	Switch-Sockets/ Modular Plates/ Mounting Boxes - Schneider/ Wipro- Platia  Wirings - Polycab/ RR Kabel/ Finolex/ Havells	Point	450	1,500.00	675,000.00
						0.00
4.3	<b>Secondary Light Point</b>  Supply, installation, testing and commissioning of point wiring for group controlled (looped) light point/ fans / plug points / bell point etc. in G.I conduit of suitable diameter, surface or recessed mounted complete with junction box, joints, bends, switch box, cover plate etc. including 1.1 KV grade 2 x 2.5 sq. mm.Copper multi-stranded PVC insulated LSZH wires alongwith 1 x 1.5 sq. mm. Copper multi-stranded PVC insulated LSZH wires as earth wire with existing modular surface/recessed mounted switch. The work shall be completed with all material including steel GI conduit, flexible metal conduit, labour, chiselling, making good surface etc. in cordination with civil agency complying with IE rules, regulations, standards and local supply authority requirements.  All accessories shall be of same make and type as that of conduit.  [Secondary point shall be from first light point/ first occupancy sensor to next light point and so on]	Wirings - Polycab/ RR Kabel/ Finolex/ Havells	Point	800	1,000.00	800,000.00


ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
4.4	<b>GI Conduit</b>  Supplying and fixing of following sizes of <b>Steel Galvanized Iron (GI) Conduit</b> (minimum thickness 1.6 mm) along with accessories in surface/ recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required:	Vimco/ BEC/ AKG/ NIC/ Supreme				
4.4.1	20 mm		Meter	400	200.00	80,000.00
4.4.2	25 mm		Meter	6000	260.00	15,60,000.00
4.4.3	32 mm		Meter	150	350.00	52,500.00
4.5	<b>PVC Conduit</b>  Supplying and fixing of following sizes 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.	Precision/ Astral/ Supreme				
4.5.1	20 mm		Meter	400	130.00	52,000.00
4.5.2	25 mm		Meter	400	160.00	64,000.00
4.5.3	32 mm		Meter	160	189.00	30,240.00
4.5.4	40 mm		Meter	160	235.00	37,600.00
4.6	<b>Circuit/ Submain Wiring</b>  Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of LSZH PVC insulated Copper conductor wires in surface/ recessed Steel Galvanized Iron (GI) Conduit alongwith all required GI fixing accessories in complete.  [cost should include cabling alongwith Steel Galvanized Iron (GI) Conduit and fixing accessories]	Wirings - Polycab/ RR Kabel/ Finolex/ Havells				
4.6.1	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire.		Meter	5600	380.00	21,28,000.00
4.6.2	2 X 4 sq. mm + 1 X 4 sq. mm earth wire.		Meter	3200	440.00	14,08,000.00
4.6.3	4 X 2.5 sq. mm + 2 X 2.5 sq. mm earth wire		Meter	200	575.00	1,15,000.00
4.7	<b>Primary Power Point</b>  Supply, installation, testing and commissioning of UPS/ Raw Power outlets (Universal) along with modular switch, modular plate, suitable GI box and blanking plate wherever required complete in all respect. The switch boards are to be concealed inside the partition of the cubicles/ walls/ modular partition grooves along with making good chases to the damaged portion of the wall, column to uphold the architectural beauty.  The item shall include supply and laying of 3C X 4 Sq. mm. (P+N+E) LSZH Copper conductor flexible cable of 1.1 KV grade from the UPS/ Raw Power DB to the respective power outlets through pre laid conduits/ raceways and terminations at both end complete in all respect.  [For work station/ printer/ cabin working table/ reception/ meeting hall area etc.]	Switch-Sockets/ Modular Plates/ Mounting Boxes - Schneider/ Wipro-Platia/Honeywell-Orna  Wirings - Polycab/ RR Kabel/ Finolex/ Havells				
4.7.1	With 1nos. 8 module modular switch boards with 3 sets of 3nos. of 6A, 240 V modular universal sockets (Shuttered) controlled by 2 nos. 16A modular switch <b>[For UPS power]</b>		Point	150	5,500.00	825,000.00





ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
4.7.2	With 1nos. 8 module modular switch boards with 3nos. of 6A, 240 V modular universal sockets (Shuttered) controlled by 1 nos. 16A modular switch <b>[For UPS power]</b>		Point	150	4,500.00	675,000.00
4.7.3	With 1 no. 3 module modular switch boards with 1 no. of 6/16A, 240 V modular universal socket (Shuttered) controlled by 1 no. 16A modular switch <b>[For Miscellaneous, standalone power points and Xerox Machine etc.]</b>		Point	200	3,100.00	620,000.00
4.7.4	With 1 no. 6 module modular switch boards with 2 nos. of 6A, 240 V modular universal sockets (Shuttered) controlled by 1 no. 16A flat modular switch <b>[For Miscellaneous, standalone power points and Xerox Machine etc.]</b>		Point	40	3,500.00	1,40,000.00
4.8	<b>Secondary Power Point</b>  Supply, installation, testing and commissioning of UPS/ Raw Power outlets (Universal) along with modular switch, modular plate, suitable GI box and blanking plate wherever required complete in all respect. The switch boards are to be concealed inside the partition of the cubicles/ walls/ modular partition grooves along with making good chases to the damaged portion of the wall, column to uphold the architectural beauty.  The item shall include supply and laying of 3C X 2.5 Sq. mm. (P+N+E) LSZH Copper conductor flexible cable of 1.1 KV grade from one Power Point to next power outlets through pre laid conduits/ raceways and terminations at both end complete in all respect. <b>(Maximum 3 points in one circuit)</b>	Switch-Sockets/ Modular Plates/ Mounting Boxes - Schneider/ Wipro- Platia/Honeywell-Orna  Wirings - Polycab/ RR Kabel/ Finolex/ Havells				
4.8.1	With 1nos. 8 module modular switch boards with 3 sets of 3nos. of 6A, 240 V modular universal sockets (Shuttered) controlled by 2 nos. 16A modular switch <b>[For UPS power]</b>		Point	300	3,200.00	9,60,000.00
4.8.2	With 1nos. 8 module modular switch boards with 3nos. of 6A, 240 V modular universal sockets (Shuttered) controlled by 1 nos. 16 modular switch <b>[For UPS power]</b>		Point	400	1,300.00	5,20,000.00
4.8.3	With 1 no. 3 module modular switch boards with 1 no. of 6/16A, 240 V modular universal socket (Shuttered) controlled by 1 no. 6/16A modular switch. <b>[For Miscellaneous, standalone power points and Xerox Machine etc.]</b>		Point	440	600.00	2,64,000.00
4.8.4	With 1 no. 6 module modular switch boards with 2 nos. of 6A, 240 V modular universal sockets (Shuttered) controlled by 1 no. 6A modular switch. <b>[For Miscellaneous, standalone power points and Xerox Machine etc.]</b>		Point	40	1,300.00	52,000.00
4.9	Industrial type socket outlet ( single phase)  Supply , installation , testing and commisioning of 25 Amps two Pin & Earth, Single phase industrail type IP 44 socket mounted along with 25 A DP MCB inside IP54 enclosure along with 3cx4 sq.mm CU arm flexible Cable in laid conduit.	Legrand/ Schnider/L&T/Havells	Each	40	3,562.00	1,42,480.00
4.10	Industrial type socket outlet ( Three phase)  Supply , installation , testing and commisioning of 32Amps five Pin Three phase industrial type IP 44 socket mounted along with 32 A FP MCB inside IP54 enclosure along with 4cx4 sq.mm CU arm flexible Cable in laid conduit..	Legrand/ Schnider/L&T/Havells	Each	20	4,000.00	80,000.00

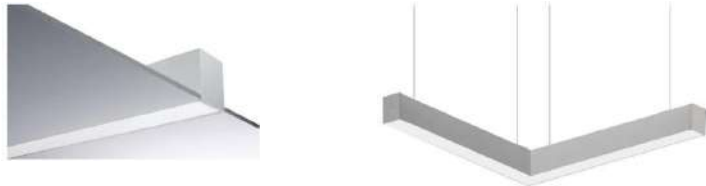
ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
4.11	Industrial type socket outlet ( single phase)  Supply , installation , testing and commisioning of 25Amps two Pin & Earth, Single phase industrail type IP 44 socket mounted along with 25 A DP MCB inside IP54 enclosure.	Legrand/ Schnider/L&T/Havells	Each	20	1,100.00	22,000.00
4.12	Industrial type socket outlet ( Three phase)  Supply , installation , testing and commisioning of type IP 54 along with 40 A FP MCB + 40A FP RCCB 300mA inside IP54 weatherproof enclosure..	Legrand/ Schnider/L&T/Havells	Each	13	8,500.00	110,500.00
<b>TOTAL FOR SECTION D - POINT WIRING</b>						<b>1,21,49,480.00</b>
<b>5</b>	<b>SECTION E - LIGHTING FIXTURES</b>					
5.1	 <p><b>Recessed Downlighter-1</b></p> <p>Supplying, installation, testing and commissioning of Recessed mounted <b>15 W</b> Round Shape Downlighter with high performance LEDs, suitable for mounting with POP/ Armstrong/Grid ceiling, pressure die-cast aluminium heat sink &amp; PC diffuser in white powder coated finish with integral electronic low THD (&lt;10%) LED driver, High efficiency long life SMD LED package in integral module with lumen efficacy of ≥110 lm/W , with deep recessed, glare free, Powered by an integrated driver, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection &amp; other reliability test. Lumen Output of 1320 to 650 lumens.CRI &gt;80, Color temperature <b>4000K/5700K</b>, THD &lt;10% and PF &gt;0.95,IP40,IK03.Life class of 50,000 hrs @ L70B50, Operating Temperature:-10 TO +35 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:3 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13, PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, BIS Certified., CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE. Fixture should be suitable for 130- 150 mm ceiling cutout and height of fixture should be ≤50mm</p> <p><b>[For Cabin/Workstation]</b></p> <p><b>Havells - Ziva Deep Recessed or Signify Greenperform sleek or Wipro Mollis X or Regent Uno or equivalent in approved makes as approved by Architect</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	600	1,500.00	900,000.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.2	 <p><b>Recessed Downlighter-2</b></p> <p>Supplying, installation, testing and commissioning of <b>DALI DIMMABLE</b> Recessed mounted <b>15W</b> Round Shape Downlighter with high performance LEDs, suitable for mounting with POP/ Armstrong/Grid ceiling. pressure die-cast aluminium heat sink &amp; PC diffuser in white powder coated finish with integral electronic low THD (&lt;10%) LED driver.High efficiency long life SMD LED package in integral module with lumen efficacy of 110 lm/W , with deep recessed, glare free.Powered by an integrated driver, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection &amp; other reliability test. Lumen Output of 1320 to 650 lumens.CRI &gt;80, Color temperature <b>4000K/5700K</b>, THD &lt;10% and PF &gt;0.95,IP40,IK03.Life class of 50,000 hrs @ L70B50, Operating Temperature:-10 TO +35 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:3 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13, PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, BIS Certified.</p> <p>CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE. Fixture should be suitable for 130- 150 mm ceiling cutout and height of fixture should be ≤50mm</p> <p><b>[Meeting room/ Multipurpose room I-Dali Dimmable]</b></p> <p><b>Havells - Ziva Deep Recessed or Signify Greenperform sleek or Wipro Mollis X or Regent Uno or equivalent in approved makes as approved by Architect</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	50	6,235.00	311,750.00


ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.3	 <p><b>Recessed Downlighter 3</b></p> <p>Supplying, installation, testing and commissioning of Recessed mounted <b>12W</b> Round Shape Fixed Downlighter with high performance LEDs, suitable for mounting with POP/ Armstrong/Grid ceiling. pressure die-cast aluminium heat sink &amp; PC diffuser in white powder coated finish with integral electronic low THD (&lt;10%) LED driver.High efficiency long life LED package in integral module with lumen efficacy of &gt;95 lm/W , with deep recessed, glare free.Powered by an integrated driver, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection &amp; other reliability test. Lumen Output of 950 to 1140 lumens.CRI &gt;80, Color temperature <b>4000K/5700K</b>, THD &lt;10% and PF &gt;0.95,IP40,IK03.Life class of 50,000 hrs @ L70B50, Operating Temperature:-10 TO +45 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:3 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13, PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, BIS Certified.</p> <p>CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE. Fixture should be suitable for 130- 150 mm ceiling cutout and height of fixture should be ≤50mm</p> <p><b>[Passage, Toilet]</b>  <b>Havells- Uneco Fixed Down Light or Signify Luxspace pro or Wipro Gimball or Regent Eco or equivalent in approved makes as approved by Architect.</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	550	1,300.00	715,000.00


ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.4	 <p><b>Cylindrical Shape Downlighter 4</b></p> <p>Supplying, installation, testing and commissioning of Surface mounted <b>15W</b> Round Shape Downlighter with high performance LEDs, suitable for mounting with POP/ Armstrong/Grid ceiling. pressure die-cast aluminium heat sink &amp; PC diffuser in white powder coated finish with integral electronic low THD (&lt;10%) LED driver. High efficiency long life LED package in integral module with lumen efficacy of &gt;80 lm/W. Powered by an integrated driver, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection &amp; other reliability test. Lumen Output of 960-1200 umens. CRI &gt;80, Color temperature <b>4000K/5700K</b>, THD &lt;10% and PF &gt;0.95, IP40, IK03. Life class of 50,000 hrs @ L70B50, Operating Temperature: 35 DEG.C; Input Supply Voltage Range: 140-270 V, Frequency : 50-60 HZ; Internal Surge Protection: 3 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS : IS 15885-2-13, PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, BIS Certified. CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE.</p> <p><b>[Executive dining &amp; staff Dining Area]</b></p> <p><b>Havells- Uneco Suspended Spot light or Signify Archspace or Wipro Vertica or Regent Rea X or equivalent in approved makes as approved by Architect.</b></p>	Philips/ Regent/ Wipro/ Havells	Each	50	2,300.00	115,000.00


ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.5	 <p><b>Light Fixture for Dining Area</b></p> <p>Supplying, installation, testing and commissioning of <b>28W to 36W</b> Hexagonal Surface/suspended decorative light with high performance LEDs uitbale for mounting with POP/ Armstrong/Grid ceiling. Aluminum extrusion heat sink &amp; PMMA diffuser in white powder coated finish with integral electronic low THD (&lt;10%) LED driver.High efficiency long life LED package in integral module with lumen efficacy of &gt;95lm/W.Powered by an integrated driver, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection &amp; other reliability test. Lumen Output of 2600 to 3420 lumens.CRI &gt;80, Color temperature <b>4000K/5700K</b>, THD &lt;10% and PF &gt;0.95,IP40,IK03.Life class of 50,000 hrs @ L70B50, Operating Temperature:45 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:3 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13, PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, BIS certified; CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE. <b>[Executive dining &amp; staff Dinning Area]</b></p> <p><b>Havells- Mondo Hexa light or Signify Pureline or Regent Hexel equivalent in approved makes as approved by Architect.</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	20	13,880.00	277,600.00


ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.6	 <p><b>Liner Luminaire 1</b></p> <p>Supplying, installation, testing and commissioning of LED <b>15 W</b> , Suspended/ Recessed L shaped linear/ Linear luminaire(60 to 70 mm width) suitable for mounting with POP/ Armstrong/Grid/actual ceiling with safety chain, fixture made of Aluminum extruded housing in white/silver powder coated finish and plastic moulded end caps.High transmittance Prismatic diffuser for glare free.High efficiency long life LED package in integral module with lumen efficacy &gt; 100 Lm/W and viewing angle of 120° to ensure better uniformity.Powered by an integral isolated low THD electronic LED driver ( SMPS based constant current supply) with output short circuit protection, surge protection. Lumen Output of 1000 to 1500 lumens.CRI &gt;80, Color temperature <b>4000K/5700K</b>, THD &lt;10% and PF &gt;0.90,IP20,IK03.Life class of 50,000 hrs @ L70B50, Operating Temperature:-10 TO +45 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:4 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885- 2-13, BIS certified, PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE. <b>(Lift Lobby)</b></p> <p><b>Havells- Destello series or Signify Pureline or Wipro Axeon+Angular or Regent Slash equivalent in approved makes as approved by Architect</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	40	2,700.00	108,000.00





ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.7	 <p><b>Liner Luminaire 2</b></p> <p>Supplying, installation, testing and commissioning of LED <b>25 W</b> , Suspended/ Recessedlinear 4ft luminaire (60 to 70 mm width) suitable for mounting with POP/ Armstrong/Grid/ actual ceiling with safety chain, fixture made of Aluminum extruded housing in white/silver powder coated finish and plastic moulded end caps.High transmittance Prismatic diffuser for glare free.High efficiency long life LED package in integral module with lumen efficacy &gt; 100 Lm/W and viewing angle of 120° to ensure better uniformity.Powered by an integral isolated low THD electronic LED driver ( SMPS based constant current supply) with output short circuit protection, surge protection. Lumen Output of 2000 to 2500 lumens.CRI &gt;80, Color temperature <b>4000K/5700K</b>, THD &lt;10% and PF &gt;0.90,IP20,IK03.Life class of 50,000 hrs @ L70B50, Operating Temperature:-10 TO +45 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:4 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13, BIS certified; PHOTO BIOLOGICAL SAFETY NORMS: IS 16108; CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE.</p> <p><b>(Corridor, Lift Lobby, Reception,Cabin and Office area)</b></p> <p><b>Havells- Destello series or Signify Pureline or Wipro Axelon/ Inspiro or Regent Slash equivalent in approved makes as approved by Architect.</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	140	3,500.00	490,000.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.8	 <p><b>Liner Luminaire 3</b></p> <p>Supplying, installation, testing and commissioning of LED <b>40W</b> , Suspended/ Recessed linear 8ft. luminaire (60 to 70 mm width) suitbale for mounting with POP/ Armstrong/Grid/ actual ceiling with safety chain, fixture made of Aluminum extruded housing in white/silver powder coated finish and plastic moulded end caps.High transmittance Prismatic diffuser for glare free.High efficiency long life LED package in integral module with lumen efficacy &gt; 100 Lm/W and viewing angle of 120° to ensure better uniformity.Powered by an integral isolated low THD electronic LED driver ( SMPS based constant current supply) with output short circuit protection, surge protection. Lumen Output of 4500 to 5000 lumens.CRI &gt;80, Color temperature <b>4000K/5700K</b>, THD &lt;10% and PF &gt;0.90,IP20,IK03.Life class of 50,000 hrs @ L70B50, Operating Temperature:-10 TO +45 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:4 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13, BIS certified; PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE.</p> <p><b>(Lift Lobby, Reception and Workstation Passage)</b></p> <p><b>Havells- Destello series or Signify Pureline or Wipro Axelon/ Inspiro or Regent Slashequivalent in approved makes as approved by Architect.</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	22	4,500.00	99,000.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.9	 <p><b>Liner Luminaire 4 ( Dali Dimmable)</b></p> <p>Supplying, installation, testing and commissioning of <b>Dali Dimmable LED 25W</b> , Surface/suspended linear 4ft luminaire (50 to 70 mm width) suitbale for mounting with POP/ Armstrong/Grid/ actual ceiling with safey chain, fixture made of Aluminum extruded housing in white powder coated finish and plastic moulded end caps.High transmittance Prismatic diffuser for glare free.High efficiency long life LED package in integral module with lumen efficacy &gt; 100 Lm/W and viewing angle of 120° to ensure better uniformity.Powered by an integral isolated low THD electronic LED driver ( SMPS based constant current supply) with output short circuit protection, surge protection. Lumen Output of 2000 to 2500 lumens.CRI &gt;80, Color temperature <b>4700K/5700K</b>, THD &lt;10% and PF &gt;0.90,IP20,IK03.Life class of 50,000 hrs @ L70B50, Operating Temperature:-10 TO +45 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:4 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13, BIS certified; PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE.</p> <p><b>(Meeting Room)</b></p> <p><b>Havells- Destello series or Signify Pureline or Wipro Axeon/ Inspiro or Regent Slash or equivalent in approved makes as approved by Architect.</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	110	4,200.00	462,000.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.10	 <p><b>Liner Luminaire 5 ( Dali Dimmable)</b></p> <p>Supplying, installation, testing and commissioning of <b>Dali Dimmable LED 50 W</b> Surface/suspended linear 8ft luminaire (50 to 70 mm width) suitable for mounting with POP/ Armstrong/Grid/ actual ceiling with safety chain, fixture made of Aluminum extruded housing in white/silver powder coated finish and plastic moulded end caps.High transmittance Prismatic diffuser for glare free.High efficiency long life LED package in integral module with lumen efficacy &gt; 100 Lm/W and viewing angle of 120° to ensure better uniformity.Powered by an integral isolated low THD electronic LED driver ( SMPS based constant current supply) with output short circuit protection, surge protection. Lumen Output of 2400 lumens.CRI &gt;80, Color temperature <b>4000K/5700K</b>, THD &lt;10% and PF &gt;0.90,IP20,IK03.Life class of 50,000 hrs @ L70B50, Operating Temperature:-10 TO +45 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:4 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13, BIS certified; PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE.</p> <p><b>(Meeting Room &amp; Multipurpose Room.)</b></p> <p><b>Havells- Destello series or Signify Pureline or Wipro Axeon/ Inspiro or Regent Slash or equivalent in approved makes as approved by Architect.</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	80	5,400.00	432,000.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.11	<p><b>(2'X2') Luminaire</b></p>  <p>Supply, Installation, Testing and Commissioning of <b>36W</b>, 2x2 Panel recess mounting luminaire with high performance LEDs, suitable for Armstrong/Grid ceiling with safety chain.CRCA powder coated white after phosphochromate treatment and High transmittance opal diffuser with special glare cut optics.High efficiency long life LED package in integral module with System lumen efficacy of &gt;100 lm/W and viewing angle of 120° to ensure better uniformity. UGR values below 19 at 4H*8H across and along the line of sight, Compliance to EN-12464-1 : Luminaire luminance &lt; 3000 cd/m2 between 65-90 deg elevation angle. Powered by an independent Isolated, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection &amp; other reliability test. Lumen Output of 2400 to 2800 lumens.CRI &gt;80, Color temperature <b>4000K/ 5700K</b>, THD &lt;10% and PF &gt;0.95,IP20,IK03.Life class of 50,000 hrs @ L70, Operating Temperature:-10 TO +45 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:4 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13, BIS certified; PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, D; CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE.</p> <p><b>Havells- Plano G2 or Signify Fullglow or Wipro Immaculate NXG or Regent Zen or equivalent in approved makes as approved by Architect.</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	780	2,230.00	17,39,400.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.12	<b>Tube Light-Batten</b>  <p>Supply, Installation, Testing and Commissioning of <b>28W</b> linear 4ft LED integrated batten made of ultra slim co-extruded polycarbonate channel with housing part in white finish &amp; diffuser part in reeded opal finish.White finish ABS end caps with decorative circular coloured polycarbonate cap snap fitted on the end cap to enhance the aesthetic of the fixture. These end caps are snap-fitted to the fixture.High efficiency long life LED with lumen efficacy of 100 lm/W with viewing angle of 120°.Powered by an integral isolated low THD electronic LED driver ( SMPS based constant current supply) with output short circuit protection, surge protection.Can be fixed directly into the wall/ ceiling by means of mounting SS clips provided with the fixture. Lumen Output of 1500 TO 2000 lumens with System efficacy of &gt; 90lm/W .CRI &gt;80, Color temperature <b>6500K</b>, THD &lt;10% and PF&gt;0.95,IP20 . Life class of 35,000 hrs @ L70, Operating Temperature:-10 TO +45 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection: 4KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13,BIS CERTIFIED; PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE.</p> <p><b>(AHU &amp; Electricals Room.)</b></p> <p><b>Havells- Lumiline or Signify SmartBright or Wipro OPTima or Regent Superslim slash or equivalent in approved makes as approved by Architect.</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	80	350.00	28,000.00
5.13	<b>Decorative Light Fixtures</b> <p>Supply Testing commissioning of recessed/suspended Mount <b>20W</b>, modern luminaire with high performance LEDs, suitable for mounting with Armstrong Grid ceiling.CRCA powder coated white after phosphochromate treatment &amp; High transmittance PMMA opal diffuser for glare free symmetric light distribution.High efficiency long life LED package in integral module with lumen efficacy of &gt;110 lm/W and viewing angle of 120° to ensure better uniformity.Powered by an Built-In electronic driver (SMPS based constant current supply) with Output Short-circuit protection,</p> <p><b>( Base price of fixture Rs.5,000/-)</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	24	15,000.00	360,000.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.14	<b>Decorative Light Fixtures</b>  Supply Testing commissioning of recessed/suspended Mount <b>30W</b> , modern luminaire with high performance LEDs, suitable for mounting with Armstrong Grid ceiling.CRCA powder coated white after phosphochromate treatment & High transmittance PMMA opal diffuser for glare free symmetric light distribution.High efficiency long life LED package in integral module with lumen efficacy of >110 lm/W and viewing angle of 120° to ensure better uniformity.Powered by an Built-In electronic driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection & other safety test.Lumen Output 3312 lumens.CRI >80, Color temperature 4000K, THD <10% and PF >0.95,IP20,IK03.Life class of 50,000 hrs @ L70, Operating Temperature:-10 TO +40 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; <b>( Base price of fixture Rs. 14,000/-)</b>	Phiips/ Regent/ Wipro/ Havells/ Or As approved by Architect	Each	35	15,000.00	525,000.00
5.15	Supply Installation,Testing and Commissioning of <b>LED Strip</b> of 5W/meter alongwith Driver 5 meter, having color temprature of 4000K/3000K for cove with all accessories etc.  <b>(Cove lighting)</b>  <b>Havells- Flexiline or Signify Flexcove or Wipro LS27 or equivalent in approved makes as approved by Architect.</b>	Phiips/ Regent/ Wipro/ Havells	Meter	900	475.00	427,500.00
5.16	Supply Installation,Testing and Commissioning of <b>32 mm x 25 mm LED profile light in conceled / surface</b> alongwith Driver with all accessories. 24W, 2/4ft conceled 1100/2200mm(With required suspension kit) LED batten with System efficacy is 115 lm/W. . IP20 protection given.The rated life of LED at 50,000 hrs with compliance to LM80. CCT of LED to be 4000K/ 6500K along with CRI≥80.LM 80-08 compliant LEDs should be provided. Product should have IP20 protection. LEDs used in the product shall comply with EN 62471 for Photo-biological safety and certificate for the same from manufacturer shall be provided. The drivers used is EMI/EMC complaint,SDCM < 5, with a power factor of more than 0.9, having a surge protection of minimum 3.5 KV with short circuit and reverse polarity protection. The THD maintained at less than 10% with driver operating temperature range of 0°C to 45°C Product is suitable to operate in 140 - 270V Ac range. service life is 5000K as per L70B50. as <b>approved by Architect.</b>	Phiips/ Regent/ Wipro/ Havells	Meter	350	1,700.00	595,000.00



ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.17.1	<p><b>Hollow Ring Downlighter - suspended</b></p> <p>Supplying, installation, testing and commissioning of <b>32W-36W</b> Suspended decorative light with high performance LEDs. Aluminum extrusion heat sink &amp; PMMA diffuser in white powder coated finish with integral electronic low THD (&lt;10%) LED driver.High efficiency long life LED package in integral module with lumen efficacy of &gt;95lm/W.Powered by an integrated driver, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection &amp; other reliability test. Lumen Output of 3420 lumens.CRI &gt;80, Color temperature <b>5700K</b>, THD &lt;10% and PF &gt;0.95,IP20,IK03.Life class of <b>50,000 hrs @ L70B50</b>, Operating Temperature:45 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:3 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13, TEST REPORT TO BE SUBMITTED; PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, BIS TEST CERTIFICATE TO BE SUBMITTED; CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE.</p> <p><b>Radius - 600mm,</b>  <b>Width (W) - 520mm</b>  <b>Height (H)- 81mm</b></p>	Phiips/ Regent/ Wipro/ Havells	Each	8	9,140.00	73,120.00
5.17.2	<p><b>Circular Shape Decorative Light Fixture</b></p> <p>Supplying, installation, testing and commissioning of <b>32W to 36W</b> Circular shape suspended decorative light with high performance LEDs. Aluminum extrusion heat sink &amp; PS diffuser in white powder coated finish with integral electronic low THD (&lt;10%) LED driver.High efficiency long life LED package in integral module with lumen efficacy of &gt;=85 lm/W.Powered by an integrated driver, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection &amp; other reliability test. Lumen Output of 3400 to 3450 lumens.CRI &gt;80, Color temperature <b>5700K</b>, THD &lt;10% and PF &gt;0.90,IP20,IK03.Life class of 50,000 hrs @ L70B50, Operating Temperature:-10 DEG C to +45 DEG.C; Input Supply Voltage Range:140-270 V, Frequency :50-60 HZ; Internal Surge Protection:3 KV; Protection : Reverse Polarity, Open &amp; Short Circuit. DRIVER SAFETY REQUIREMENT STANDARDS :IS 15885-2-13, TEST REPORT TO BE SUBMITTED; PHOTO BIOLOGICAL SAFETY NORMS: IS 16108, BIS TEST CERTIFICATE TO BE SUBMITTED; CERTIFICATION: LM 79 FOR LUMINAIRE LM 80 FOR LED SOURCE.</p> <p>Fixture Dia shall be 600 mm and height of fixture should be 70mm-80mm, weight of fixture shall be maximum 3 kgs.</p> <p>Fixture shall be supplied with Surface mounting / suspension mounting kits as per requirement of site.</p> <p><b>Radius - 600mm,</b>  <b>Width (W) - 520mm</b>  <b>Height (H)- 81mm</b></p>	Phiips/ Regent/ Wipro/ Havells		8	6,000.00	48,000.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.17.3	Wall light - 2 way - Supply & Installation of Model No. : PRO-331 Housing Material : Aluminium Die-Cast Body Colour : Black / Gold Power : 2x2.5W Dimension : Ø82x85mm Make: Hybec Basic rate: Rs.8000	Phiips/ Regent/ Wipro/ Havells		8	9,000.00	72,000.00
5.17.4	Supply & Installation of floor standing Architectural decorative lights as per architects selection. Basic rate: Rs.8000	Phiips/ Regent/ Wipro/ Havells		8	9,000.00	72,000.00
5.18	<b>Occupancy cum Presence Sensor</b>  Supplying, installation, testing and commissioning of ceiling recessed daylight - occupancy ON/OFF sensor with passive infra-red (PIR) based sensors, Recess mounted, movement cum presence detector with dual lens, 360 degree angle of view. Detection range for presence 6 m x 8 m. Detector should have separate off time delay setting (up to 30 mins) and a daylight override function to disable artificial light in case of excess daylight. The range of lux level setting should be available from 250-1000 lux.(Sensor should have provision of masking a portion of sensing field with retractable shield as required to prevent nuisance detection from adjacent doorways or corridors. Sensor should have daylight override feature available making it possible to prevent automatic switch on of lights when sufficient daylight is available for additional savings. ). Similar to Philips Cat: LRM1071 or equivalent	Hager/ Schneider/ Legrand/ Philips/ Honeywell	Each	80	3,600.00	288,000.00
5.19	<b>Lighting Control:</b>	Philips/ Schneider/ Havells (Crabtree)/ ABB				
5.19.1	<b>Digital Addressable Lighting Interface (DALI) Controller</b>  SITC of 3 Dali Outputs, upto 180 Dali device including 3X20A feed through switched circuits for Dali Driver mains Supply. Compatible with Dali Drivers,DALI Electronic low Voltage transformers and DALI LED fixtures. Integral DALI Bus power Supply.CE and ROHS Certified. Similar to Philips Dynalite cat: DDBC320 DALI CONTROLLER or equivalent in approved make as approved by consultant.		Each	4	8,000.00	32,000.00
5.19.2	<b>Network Power Supply</b>  Supply: 110-240V ±14% 50/60Hz Single Phase at 0.25A Output: 15 Volt DC @ 1.5 Amps (@230V supply) 15 Volt DC @ 1.0 Amps (@110V supply) Protection: Self resetting overload protection Short circuit proof Automatic thermal shutdown Dimensions: H 94.5mm x W 105mm x D 75mm. Philips Dynalite cat: DDNP1501 or equivalent in approved make as approved by consultant.		Each	4	6,700.00	26,800.00

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
5.19.3	<b>Keypad Facia with Keypad communication module</b>  Supplying, installation, testing and commissioning of low voltage keypad with minmum 6 keys. The labels for each button can be customised. Each button can be configured as multi modes/ control types for eg, single on/off, combination on/ off, scenes etc LOW-VOLTAGE BUTTON PANEL / KEYPAD Antumbra Button User Interface Panels (Application Module) Supply Voltage 12-24 VDC (SELV/Class 2) Number of Buttons: 6 Button Finish: White (Options: Silver, Magnesium, Aluminum, Gold, Jet, Noir, Prestige, Vintage) Rim finish: White (Options: Magnesium, Aluminum, Chrome) Dimensions H 88mm x W 88mm x D 22 mm. Similar to Philips Dynalite Cat: PATPE-WW-X .Philips Cat: DACM-V2 Dynalite Antumbra Communication Module for Keypad. Quantity should be same as Keypad Facia Quantity all complete		Each	4	6,700.00	26,800.00
5.19.4	<b>Multifunction Sensor For Dimming</b>  'Supply, installation, testing and commissioning of recessed mount multifunction sensor with Motion/ Presence PIR sensor inbuilt along with Daylight Dimming Harvesting Mode; Maximum Detection Area: 7 m x 5m rectangular (at a height of 2.4m) Detection speed: 1.0m/s Detection object: 700mm x 250mm Detection zones: 64 LED activation indicator Sensor: Quad element pyro- electric R.F.I. Immunity: >15V/m @ 10-1000MHz PE Cell Dynamic range <5 lux to >500 lux . Dynet DC load 20mA. Rate should inclusive of rigid supports for suspension if required.(Sensor should have provision of masking a portion of sensing field with retractable shield as required to prevent nuisance detection from adjacent doorways or corridors. Sensor should have feature of turning ambient light detection feature off ( from LMS Software) in areas where this feature is not required. Sensor should have lux detection range of 5-5000 lux.)Philips Dynalite (item Code: DUS360CR) Or Equivalent in approved make as approved by consultant.		Each	23	6,700.00	154,100.00
5.19.5	<b>Ethernet Interface</b>  'Supply of IP Gateway Module (100 Base T Ethernet Interface) for lighting controller and for the use of AV control system .Similar to Philips Dynalite Cat: PDEG or Equivalent in approved make as approved by consultant.		Each	4	3,500.00	14,000.00
5.19.6	<b>Power Cabling</b>  Supplying and laying of 5 core, 1.5 sq. mm. Copper conductor, PVC insulated LSZH cable in the existing surface/ recessed conduit as required		Meter	350	400.00	140,000.00
5.19.7	<b>Integration and Programming</b>  Integration, programming and commissioning of lighting control system as per the directions of Architect/ Consultant		Each	1	5,000.00	5,000.00
5.20	SITC of Storage Geysers of capacity 3 Ltr.	Make:- Havells/ Racold/AO Smith	Each	4	4,776.00	19,104.00
	<b>TOTAL FOR SECTION E - LIGHTING FIXTURES</b>					<b>85,56,174.00</b>

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	Amount (Rs.)
6	SECTION F - PUBLIC ADDRESSAL SYSTEM					
6.1	<b>Speakers</b> Supplying, Installation, Testing and Commissioning of 'CEILING SPEAKER, 6W, ABS, 2" + BACK BOX FOR LC5 SPEAKER with seamless intergration with existing PA main controller , amplifier or any other equipments required for 100 % working all complete.	Bosch (Model No. LC5 WC06E4 + LC5-CBB)/Ahuja/sony	Each	175	1,200.00	210,000.00
6.2	Cable Supply and laying 2x1.5 sqmm multi stranded copper conductors cable, twisted,Shielded, LSZH sheathed, armoured control cables.	Polycab/ Finolex/ KEI	Meter	3650	150.00	547,500.00
6.3	Testing, Commissioning of above speakers with seamless intergration with existing PA main controller , amplifier or any other equipments required for 100 % working all complete.		JOB	1	30,000.00	30,000.00
	<b>TOTAL FOR SECTION H - PUBLIC ADDRESSAL SYSTEM</b>					<b>787,500.00</b>
	<b>GRAND TOTAL FOR ELECTRICAL &amp; PA SYSTEM</b>					<b>44,570,009.00</b>

NOVAC, WLD, FIRE ALARM & FIRE FIGHTING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC		
	SUMMARY SHEET	
ITEM NO.	ITEM DESCRIPTION	Amount
1	TOTAL FOR SECTION A - NOVAC	1,063,228.00
2	TOTAL FOR SECTION B - WLD	515,000.00
3	TOTAL FOR SECTION C - FIRE ALARM	2,979,073.00
4	TOTAL FOR SECTION D - FIRE FIGHTING	2,830,975.00
A	TOTAL (SECTION 1+2+3+4 )	7,388,276.00

**NOVAC WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

No.	Description	Unit	Qty	RATE (Rs.)	Amount (Rs.)
1.1	SITC 160 ltr. Cylinder with Valve, Make: Siemens/Minimax/cryptzo	nos.	2	198,894.00	397,788.00
1.2	SITC NOVEC 1230 GAS	kg.	80	6,500.00	520,000.00
1.3	SITC 2 Zone Gas Release Control Panel Integration with main fire Panel Make: Ravel	nos.	1	10,000.00	10,000.00
1.4	SITC Multicriteria Smoke Detectors, Make: System Sensor	nos.	6	1,500.00	9,000.00
1.5	SITC Manual Call Point, Make: System Sensor	nos.	1	1,000.00	1,000.00
1.6	SITC Strobe cum Hooter, Make: Agni	nos.	1	1,000.00	1,000.00
1.7	SITC Manual Abort Station, Make: System Sensor	nos.	1	1,000.00	1,000.00
1.8	SITC Manual Release Station, Make: System Sensor	nos.	1	1,000.00	1,000.00
1.9	SITC Cylinder Straps	nos.	1	500.00	500.00
1.1	SITC Solenoid Actuator Assembly 24V DC, Make: Siemens/Minimax	nos.	1	18,500.00	18,500.00
1.11	SITC Manual Actuator, Make: Siemens/Minimax	nos.	1	5,940.00	5,940.00
1.12	SITC Discharge Hose, Make: Siemens/Minimax	nos.	1	17,200.00	17,200.00
1.13	SITC Master Cylinder Adapter, Make: Siemens/Minimax	nos.	1	1,500.00	1,500.00
1.14	SITC Pneumatic Actuator Assembly, Make: Siemens/Minimax	nos.	1	9,900.00	9,900.00
1.15	SITC Pilot Hose Assembly, Make: Siemens/Minimax	nos.	1	3,500.00	3,500.00
1.16	SITC Manifolds with Check Valve, Make: Siemens/Minimax	nos.	1	20,900.00	20,900.00
1.17	SITC Warning Sign Stickers, Make: Star	nos.	1	1,000.00	1,000.00
1.18	SITC Nozzles Make: Siemens/Minimax	nos.	5	6,700.00	33,500.00
1.19	SITC M.S Schedule 40 ASTM Piping with all required Accessories & Fittings	JOB	1	10,000.00	10,000.00
<b>A</b>	<b>TOTAL OF NOVAC GAS</b>				<b>1063228.00</b>



WLD WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC					
No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1.1	SITC of 8 Zone H2O Digital WLD Panel with modbus over RS-485, accuracy 0.5 to 1 mtrs ,20*4 LCD display, Alarm Relay Contacts zone wise	NOS	2	200,000.00	400,000.00
1.2	SITC of 10 Mtr. Long 4 core Digital Water Leak Detection Cable, Per Mtrs Sensing	NOS	16	5,500.00	88,000.00
1.3	SITC of 10 Mtr. Long 4 core Digital Water Leak Detection Cable, Per Mtrs Sensing	NOS	2	5,500.00	11,000.00
1.4	SITC of Conventional Sounders Make: Local	mtrs	2	500.00	1,000.00
1.5	SITC 4C X 1.00 sqmm. Cable in PVC Conduits	mtrs	150	100.00	15,000.00
<b>B</b>	<b>TOTAL OF WLD SYSTEM</b>				<b>515000.00</b>



## FIRE ALARM AND FIRE FIGHTING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
<b>1</b>	<b>FIRE DETECTION AND ALARM SYSTEM</b>					
1.1	<b>Repeater Panel</b> Supplying, installation, testing and commissioning of repeater panel with 80 character/ Touch screen LCD display with inbuilt reset, acknowledge and silence switches complete as required.		Each	4	40,000.00	160,000.00
1.2	<b>Heat Detector</b> Supplying, Installation, Testing and Commissioning of Addressable Rate of Rise Heat Detector rated at 9.4 deg C/min. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches.	Notifier - FST-951R + B501/WHITE	Each	1	5,186.00	5,186.00
1.3	<b>Multi-Criteria Thermal Detector</b> Supplying, installation, testing and commissioning of Addressable Multi-criteria Photo-Thermal Detector with sensitivity range of 0.5 to 4.0% obs/ft. The intelligent multi criteria detection device shall include the ability to combine the signal of the thermal sensor with the signal of the photoelectric signal in an effort to react hastily in the event of a fire situation. It shall also include the inherent ability to distinguish between a fire condition and a false alarm condition by examining the characteristics of the thermal and smoke sensing chambers and comparing them to a database of actual fire and deceptive phenomena. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches. Designed to meet UL268, 7th Edition	Notifier - FSP/951T + B501/WHITE	Each	500	1,900.00	950,000.00
1.4	<b>Duct Smoke Detector</b> Supplying, installation, testing and commissioning of Addressable Duct Smoke Detector. The duct detector shall have an air velocity rating from 100 to 4000 ft/min. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches. Detector shall meet the UL268 7th edition requirement.	Notifier - DNR + FSP/ 951	Each	24	4,500.00	108,000.00
1.5	<b>Response Indicator</b> Supplying, Installation, Testing and Commissioning of Response Indicator on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.	Agni/ Shubham/ Honeywell	Each	260	283.00	73,580.00
1.6	<b>Isolator Module</b> Supplying, Installation, Testing and Commissioning of Isolator Module for Isolating short / dewired / loose circuits with automatic resetting arrangement. Isolator Base can also be proposed, however in that case needs to be considered with each detector and module. The device shall have an LED which shall blink in normal state and get steady on activation to monitor the health status of the device.	Notifier - ISO/X	Each	32	2,300.00	73,600.00

## FIRE ALARM AND FIRE FIGHTING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
1.7	<b>Control Module</b>  Supplying, Installation, Testing and Commissioning of Addressable Control Module for Sounder cum Strobes. The control module shall provide supervised NAC output rated at 24VDC, 2A. The device shall have an LED which shall blink in normal state and get steady on activation to monitor the health status of the device. Addressing shall be with user friendly rotary decimal switches. Module shall be supplied with mounting plate from OEM for ease of installation and maintenance.	Notifier - FCM-1	Each	20	2,200.00	44,000.00
1.8	<b>Relay Module</b>  Supplying, Installation, Testing and Commissioning of Addressable Relay Module for AHU, Access Control, Lifts, Staircase Pressurization and other Third Party Outputs. The relay module shall provide DPDT contact rated at 24V DC, 2A. The device shall have an LED which shall blink in normal state and get steady on activation to monitor the health status of the device. Addressing shall be with user friendly rotary decimal switches. Module shall be supplied with mounting plate from OEM for ease of installation and maintenance.	Notifier- FRM-1	Each	32	2,200.00	70,400.00
1.9	<b>Manual Call Point</b>  Supplying, Installation, Testing and Commissioning of Addressable Manual Call Point ( <b>Break glass type</b> ). The device shall have an LED which shall blink in normal state and get steady on activation to monitor the health status of the device.	Notifier - F/ MCP/ GLASS	Each	32	1,250.00	40,000.00
1.10	<b>Sounder cum Strobe</b>  Supplying, Installation, Testing and Commissioning of Sounder cum Strobe rated at 75 dBA @ 3m for Audible annunciation and 75cd flashintg at 1 Hz for visual indication.	Notifier- SYS/HS	Each	24	1,800.00	43,200.00
1.11	<b>Monitor Module</b>  Supplying, Installation, Testing and Commissioning of Addressable Monitor Module for flow switches, fire fighting status and other Third Party Inputs. The monitor module shall monitor potential free contacts. The device shall have an LED which shall blink in normal state and get steady on activation to monitor the health status of the device. Addressing shall be with user friendly rotary decimal switches. Module shall be supplied with mounting plate from OEM for ease of installation and maintenance.	Notifier- FMM/1	Each	16	1,800.00	28,800.00
1.12	<b>Cable</b>  Supplying and laying of 2x1.5 sqmm twisted fire alarm armoured cable, 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armouring and LSZH outer sheath of red colour complete with all the required fixing accessories in complete as required.	Polycab/ Finolex/ KEI	Meter	5800	90.00	522,000.00
1.13	Supply, Installation, testing and commissioning of 8 loop Microprocessor based Intelligent Analog Addressable with each loop catering to 127 devices or 127 modules, 127 Detector per Loop Fire Alarm Panel with 10% overall spare capacity for any interior layout changes during execution work and having BACNET compatibility for integration with BMS System	Notifier	Each	1	540,307.00	540,307.00
1.14	Testing, Commissioning of above fire detection and alarm system with existing fire control panel as per the direction of Client/Architect/Consultant complete in all respect for 100% working.		Job	1	40,000.00	40,000.00
1.15	Voice Evacuation system with integration with Fire Panel		Job	1	130,000.00	130,000.00

## FIRE ALARM AND FIRE FIGHTING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
1.16	Supply & Installation of Booster Amplifire shall be compacted above voice evacuation system with having a point of Mic & Audio with usb connectivity		Job	1	150,000.00	150,000.00
<b>C</b>	<b>TOTAL FOR - FIRE DETECTION AND ALARM SYSTEM</b>					<b>2,979,073.00</b>
<b>2</b>	<b>FIRE FIGHTING SYSTEM</b>					
	<b>Sprinkler</b>	Tyco/ Newage/ Minimax				
	Providing, fixing, testing and commissioning of 15mm dia quartzoid bulb type following sprinklers of rating 68 degree centigrade with required accessories					
2.1	All sprinklers shall be provided with adjustable escutcheons (face plate) with stainless steel finish.  All accessories of sprinkler such as escutcheons etc. shall be of same make as that of sprinkler					
2.1.1	Pendent Sprinkler		Each	780	577.00	450,060.00
2.1.2	Upright Sprinklers		Each	780	574.00	447,720.00
	<b>Sprinkler Pipe</b>	Tatasteel/ Jindal/ Zenith				
2.2	Providing, laying, testing and commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of postoffice red complete as required :					
2.2.1	150 mm dia		Meter	40	1,450.00	58,000.00
2.2.2	100 mm dia		Meter	60	850.00	51,000.00
2.2.3	80 mm dia		Meter	200	650.00	130,000.00
2.2.4	65 mm dia		Meter	100	425.00	42,500.00
2.2.5	50 mm dia		Meter	100	300.00	30,000.00
2.2.6	40 mm dia		Meter	100	225.00	22,500.00
2.2.7	32 mm. dia		Meter	200	160.00	32,000.00
2.2.8	25 mm dia		Meter	200	125.00	25,000.00
	<b>Sprinkler Flexible Pipe</b>	Omex/ Apollo/ Bossflex				
2.3	Supplying, installation, testing and commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes:					

## FIRE ALARM AND FIRE FIGHTING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
2.3.1	1500 mm		Each	777	1,200.00	932,400.00
2.4	<b>Butterfly Valve</b> Supplying, fixing, testing and commissioning of double flanged butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required :	Leader/ Zoloto/ Sant				
2.4.1	150 mm dia		Each	8	8,500.00	68,000.00
2.4.2	100 mm dia		Each	8	6,500.00	52,000.00
2.4.3	80 mm dia		Each	1	5,700.00	5,700.00
2.4.4	65 mm dia		Each	1	5,172.00	5,172.00
2.4.5	50 mm dia		Each	1	4,551.00	4,551.00
2.5	<b>RRL Hose</b> Supplying and fixing 63 mm dia, 15 m long RRL (Reinforced Rubber Lined) hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required:	Newage/ Minimax/ Nitin Fire				
2.5.1	Gun Metal		Set	1	8,438.00	8,438.00
2.6	<b>First-Aid Hose Reel</b> Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required:  20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 20  mm nominal internal dia gun metal globe valve and nozzle.  Drum and brackets for fixing the equipments on wall.  Connections from riser with 25 mm dia stop gun metal valve and M.S. Pipe and socket.	Newage/ Minimax/ Nitin Fire				
2.6.1	40 m		Set	1	12,396.00	12,396.00
2.7	<b>Flow Switch</b> Providing and fixing flow switch in following sizes M.S. pipe including Connection etc as required.	Flowell/ Flowman				
5.7.1	100 mm dia		Each	8	8,313.00	66,504.00
2.7.2	150 mm dia		Each	1	9,262.00	9,262.00
2.8	<b>Pressure Gauge</b> Supplying and installing pressure gauge of following dia., 0-300 PSI or 0-14 kg per cm square fitted with 12/15 mm dia. pad cock valve and G.I. pipe, elbow etc. complete in all respect	Waaree / Fiebig / Bourdon				

FIRE ALARM AND FIRE FIGHTING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC						
ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
2.8.1	150 mm dia.		Each	2	3,088.00	6,176.00
2.8.2	100 mm dia.		Each	8	2,661.00	21,288.00
2.9	<b>Fire Extinguishers</b> Supplying and fixing trolly mounted fire extinguishing hand appliances complete in all respect as below:	Ceasefire/ Newage/ Minimax				
2.9.1	Supplying and erecting trolly mounted ABC powder type fire extinguisher as per IS : 13849 /15683 of 6 kg capacity with necessary accessories.		Each	40	3,925.00	157,000.00
2.9.2	Supplying and erecting trolly mounted Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conforming to IS 2878 /15683 complete in all respect.		Each	4	8,287.00	33,148.00
2.9.3	Supplying and erecting Clean Agent standalone ceilling mounted fire extinguisher of 5 kg. capacity with auto discharge mechanism when temperature rises above 68° C, applicable on Class A, B, C and electrically started fire, conforming to IS 2878 /15683 complete erected with necessary MS Hanging rod.		Each	8	9,583.00	76,664.00
2.9.4	Supplying and erecting Clean Agent standalone ceilling mounted fire extinguisher of 10 kg. capacity with auto discharge mechanism when temperature rises above 68° C, applicable on Class A, B, C and electrically started fire, conforming to IS 2878 /15683 complete erected with necessary MS Hanging rod.		Each	4	20,874.00	83,496.00
<b>D</b>	<b>TOTAL FOR - FIRE FIGHTING SYSTEM</b>					<b>2,830,975.00</b>

L.V SYSTEM (CCTV) & ACCESS CONTROL WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC		
	SUMMARY SHEET	
ITEM NO.	ITEM DESCRIPTION	Amount
1	TOTAL FOR SECTION A - L.V SYSTEM (CCTV)	1,224,872.00
2	TOTAL FOR SECTION B - ACCESS CONTROL	3,511,468.00
A	TOTAL (SECTION A+B+C+D)	4,736,340.00

L.V SYSTEM (CCTV) & ACCESS CONTROL WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC						
ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (in Rs.)	AMOUNT (in Rs.)
1	CCTV SURVEILLANCE SYSTEM					
1.1	<b>Indoor Dome Type Camera</b>  Supply, Installation, Testing and Commissioning of ceiling mounted Indoor Dome camera with Motorised Lens (4 to 10 mm ( +/- 2 mm)) having following features:  1/2.8-inch CMOS, Effective pixels 1920 x 1080 (2MP), IR range upto 30 mts or better, Lux Color 0.2 lx, Mono 0.02 lx, 120 dB Dynamic range or better, 3 streams at full frame and full resolution, Automatic Electronic Shutter (AES); Dynamic Noise Reduction, H.265, H.264 MP (Main Profile); M-JPEG Video compression, White balance, Backlight Compensation, Privacy Mask, Pixel counter , Alarm Input 1/1, Audio Input, RJ45, G.711.  <b>Edge based analytics:</b> line crossing, loitering, perimeter intrusion, object classification (human, vehicle etc),camera tampering, motion detection.  Certifications: ONVIF Profiles S, FCC, CE, UL Certified, BIS certification.  The quoted equipment should not support any interconnection/ communication protocol, such as the GB/T 28181 protocol adhered to by the equipment manufacturer and which requires sharing of information or data with any foreign government or agency, nor should the quoted equipment be manufactured in a country that mandates such a protocol.  In case for network failure MicroSD card slot should have a capacity to record seamlessly for 15 days at full frame and full resolution minimum 512 GB	SONY/ BOSCH	Each	20	15,462.00	309,240.00
1.2	<b>Outdoor Bullet Type Camera</b>  Supply, Installation, Testing and Commissioning of Outdoor Bullet Camera with Motorised Lens (4 to 10 mm ( +/- 2 mm)) having following features:  1/2.8-inch CMOS, Effective pixels 1920 x 1080 (2MP), IR range upto 30 mts or better, Color 0.1 lx, Mono 0.02 lx, IR 0.01 lx, 120 dB Dynamic range or better, 3 streams at full frame and full resolution, Automatic Electronic Shutter (AES); Dynamic Noise Reduction, H.265, H.264 MP (Main Profile); M-JPEG Video compression, White balance, Backlight Compensation, Privacy Mask, Pixel counter , Alarm Input 1/1, Audio Input, RJ45, G.711.  <b>Edge based analytics:</b> line crossing, loitering, perimeter intrusion, object classification (human, vehicle etc), camera tampering, motion detection.  Certifications: ONVIF Profiles S, FCC, CE, UL Certified, BIS certification.  The quoted equipment should not support any interconnection/communication protocol, such as the GB/T 28181 protocol adhered to by the equipment manufacturer and which requires sharing of information or data with any foreign government or agency, nor should the quoted equipment be manufactured in a country that mandates such a protocol.  In case for network failure MicroSD card slot should have a capacity to record seamlessly for 15 days at full frame and full resolution minimum 512 GB	Bosch	Each	2	25,938.00	51,876.00



**L.V SYSTEM (CCTV) & ACCESS CONTROL WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC**

ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (in Rs.)	AMOUNT (in Rs.)
1.3	Supply and Laying of armoured CAT 6 cable for CCTV system	SYSTIMAX/ LEGRAND/PANDUI	Meter	2400	80.00	192,000.00
1.4	48" LED MONITOR WITH HDMI SUPPORT (Samsung or LG)		Nos	4	75,000.00	300,000.00
1.5	Power Supply with Input 230VAC +/- 10%,Output 12V +/- 2Volt,load regulation & line regulation less than 0.1%,Electronic protection against overload & short circuit,outout ripple less than 1 milli volt RMS,with Redundacy mode facility.					
	5 Amps output					
	<b>ERTL Tested /Equiv.</b>					
1.5.1	<b>6U NVR RACK</b>		Nos	4	15,439.00	61,756.00
1.5.2	16 CH HIKVISION NVR FOR 5 MP CAMERA SUPPORT 2 SATA INTERFACE		Nos	4	65,000.00	260,000.00
1.5.3	4 TB SATA HARD DISK (SV35 SURVEILLANCE HDD OR EQUIVALENT)		Nos	4	12,500.00	50,000.00
1.5.4	5 MTR HDMI CABLE (BRANDED)					
1.5.	Following are the specifications for L3 POE Switch 1) 8 port PoE 10/100/1000 Mbps layer 3 switch 2) IP multicast snooping 3) Data-driven IGMP support 4) Minimum 4 nos. 1000baseT Single mode FO uplink ports and all accessories. 5) Vendor shall furnish all necessary accessories of networking required for IP CCTV 6) All necessary approvals as required at the discretion & final directions of Consultants/ Owner.					
<b>A</b>	<b>TOTAL FOR - CCTV SURVEILLANCE SYSTEM</b>					<b>1,224,872.00</b>
<b>2</b>	<b>ACCESS CONTROL SYSTEM</b>					
2.1	<b>Door Controller [4 reader Door Controller]</b>  'Supply, installation, testing and commissioning of Intelligent access Controller; 2GB Flash memory; LCD Display; 8 Inputs and 8 Outputs; 4 Wiegand Readers Designed for installing One a power supply and two batteries A power supply unit with an integrated battery charging device	Bosch	Each	16	45,740.00	731,840.00
2.2	<b>Card Reader</b>  Supplying, Installation, Testing and Commissioning of Mifare card reader with weigand output, UL/ BIS certified	HID i-Class (Model No. R-10)	Each	32	11,892.00	380,544.00
2.3	<b>Biometric Reader</b>  Supplying, Installation, Testing and Commissioning of Biometric face reader with camera for server room and time and attendance	HID i-Class	Each	8	67,001.00	536,008.00
2.4	<b>Electromagnetic Lock</b>  Supplying, Installation, Testing and Commissioning of 12/ 24V DC magnetic locks with LED, inbuilt contact along with armature contact etc including all accessories. (alongwith feedback sensor), UL/ BIS certified	Trimec/ Dafikas/BEL				
2.4.1	For Single Leaf of 600 lb		Each	16	4,482.00	71,712.00

L.V SYSTEM (CCTV) & ACCESS CONTROL WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC						
ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (in Rs.)	AMOUNT (in Rs.)
2.4.2	For Double Leaf of 1200 lb		Each	8	6,804.00	54,432.00
2.5	<b>Magnetic Contacts</b> Supplying, Installation, Testing and Commissioning of Recessed type Magnetic Contacts	Trimec/ Dafikas	Each	32	57.00	1,824.00
2.6	<b>Exit Push Button</b> Supplying, Installation, Testing and Commissioning of SS plate exit push button	Trimec/ Dafikas	Each	28	1,616.00	45,248.00
2.7	<b>Signal Cabling</b>					
2.7.1	Supplying, Installation, Testing and Commissioning of armoured 2C X 1.0 sq mm PVC LSZH cable	Polycab/ Finolex/ R R Kabel/ KEI	Meter	2770	130.00	360,100.00
2.7.2	Supplying, Installation, Testing and Commissioning of armoured 4C X 1.0 sq mm PVC LSZH cable	Polycab/ Finolex/ R R Kabel/ KEI	Meter	2000	180.00	360,000.00
2.7.3	Supplying, Installation, Testing and Commissioning of armoured 8C X 1.0 sq mm PVC LSZH cable	Polycab/ Finolex/ R R Kabel/ KEI	Meter	3344	290.00	969,760.00
<b>B</b>	<b>TOTAL FOR - ACCESS CONTROL SYSTEM</b>					<b>3,511,468.00</b>



RODENT REPELLENT WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC		
	SUMMARY SHEET	
ITEM NO.	ITEM DESCRIPTION	Amount
1	TOTAL FOR SECTION A - RODENT REPELLENT	1,141,821.00
A	TOTAL FOR SECTION A	1,141,821.00

RODENT REPELLENT WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC						
ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (in Rs.)	AMOUNT (in Rs.)
1	RODENT REPELLENT SYSTEM					
1.1	<b>Controller</b> SITC of Microprocessor based Master Controller with Graphic LCD DISPLAY capable of operating in miimum 5 ultrasonic frequency band spectrums. The controller should also support upto 20 transducers @ minimum 500 sq. ft each. The system shall use UL/ CE approved. Necessary beacket reduired for mounting the controller shall also be prpvided	Maser/ Star Electronics	Each	21	18,909.00	397,089.00
1.2	<b>Transducer</b> Supplying, Installation, Testing and Commissioning of transducer should cover a minimum area upto 300 sq. ft in all voids. No Looping permitted.	Maser/ Star Electronics	Each	332	1,800.00	597,600.00
1.3	Supplying, Installation, Testing and Commissioning of armoured 2C X 1.0 sq mm.	As prescribed by Maser/ Star Electronics	Metre	2452	60.00	147,132.00
A	TOTAL FOR - RODENT REPELLENT SYSTEM					1,141,821.00

I.T, LAN, DATA CABLE WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC		
	SUMMARY SHEET	
ITEM NO.	ITEM DESCRIPTION	Amount
1	TOTAL FOR SECTION A - I.T, DATA, CABLE WORKS	21,023,585.00
A	TOTAL (SECTION A)	21,023,585.00

DATA AND NETWORKING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC						
ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (in Rs.)	Amount (in Rs.)
	<b>SECTION A - DATA NETWORKING</b>					
1.1	Supply and laying 24 AWG, 4 pair STP networking Cat-6 SHIELDED cable for LAN/ WAN computer networking as per specification and termination at both ends in CAT 6A IO module and Patch panel side in the prelaid conduit/ floor raceways.	SYSTIMAX/ LEGRAND/PANDUIT	Meter	75240	35	2,633,400.00
1.2	Supply and laying 24 AWG, 4 pair STP networking Cat-6A SHIELDED cable for LAN/ WAN computer networking as per specification and termination at both ends in CAT 6A IO module and Patch panel side in the prelaid conduit/ floor raceways.	SYSTIMAX/ LEGRAND/PANDUIT	Meter	73500	75	5,512,500.00
1.3	<b>CAT6A I/O Outlets</b> Supplying and fixing tool-less information outlet (I/O) CAT6A flush type with modular box as per site requirements.	SYSTIMAX/ LEGRAND/PANDUIT	Meter	1370	520	712,400.00
1.4	<b>RJ 45 I/O Outlets</b> Supplying and fixing tool-less information outlet (I/O) RJ 45 flush type with modular box as per site requirements.	SYSTIMAX/ LEGRAND/PANDUIT	Each	1663	397	660,211.00
1.5	<b>Four Module Face Plate</b> Supply and fixing four module face plate with shutter	SYSTIMAX/ LEGRAND/PANDUIT	Each	1123	175	196,525.00
1.6	<b>CAT6 Patch Cords</b> Supplying and fixing UTP patch cord of LSZH Cat 6 type ferruled at both ends and crimped with RJ--45 connectors and fixed with RJ 45 outlets of Patch panel/ network switch in Hub Room racks of following size:  [Patch cords for Active Port should be Green in colour and Patch cords for Redundant Port should be blue in colour]	SYSTIMAX/ LEGRAND/PANDUIT				
1.6.1	<b>1 meter</b> length (should be equal to Number of ports in Access switch)	SYSTIMAX/ LEGRAND/PANDUIT	Each	1662	312	518,544.00
1.6.2	<b>2 meter</b> length (should be equal to Number of ports in Access switch)	SYSTIMAX/ LEGRAND/PANDUIT	Each	1662	346	575,052.00
1.7	<b>Supply and laying 24 AWG, 4 pair STP networking Cat-6A SHIELDED cable 1 meter length (should be equal to Number of ports in Access switch)</b>	SYSTIMAX/ LEGRAND/PANDUIT	EACH	1585	550	871,750.00
1.8	<b>Supply and laying 24 AWG, 4 pair STP networking Cat-6A SHIELDED cable 2 meter length (should be equal to Number of ports in Access switch)</b>	SYSTIMAX/ LEGRAND/PANDUIT	EACH	1585	650	1,030,250.00
1.9	<b>Patch Panel</b> Supplying and fixing fully loaded following CAT 6 port patch panel with tool-less keystone jacks (loaded RJ-45 sockets) in provided U Rack complete as per specification	SYSTIMAX/ LEGRAND/PANDUIT				
1.9.1	<b>48 Port</b>		Each	82	12,500	1,025,000.00
1.9.2	<b>24 Port ( For Wifi/ CCTV and Access control)</b>	SYSTIMAX/ LEGRAND/PANDUIT	Each	8	12,500	100,000.00
1.10	<b>Patch Panel</b> Supplying and fixing fully loaded followingCAT 6A port patch panel with tool-less keystone jacks (loaded RJ-45 sockets) in provided U Rack complete as per specification	SYSTIMAX/ LEGRAND/PANDUIT				
1.10.1	<b>48 Port</b>	SYSTIMAX/ LEGRAND/PANDUIT	EACH	70	16,498	1,154,860.00

DATA AND NETWORKING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC						
ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (in Rs.)	Amount (in Rs.)
1.11	<b>Server Rack</b>					
1.11.1	Supplying and fixing 42U floor mount server Rack perforated doors back and front both sides door no glass doors should be perforated . Dual PDU , wuth atleast 16 sockets om each pdu of c-13 - c-14 standards level exhaust fans, and digital temperature indicator (Dimension-DxW – 800x1000 x2070mm) as per specification	Valrack	Each	33	70,500	2,326,500.00
1.11.2	Supplying and fixing 9/12/15 U floor/ wall mount server Rack perforated doors back and front.	Valrack	Each	4	10,000	40,000.00
1.12	<b>6 Core MM Optical Fiber Cable</b>  Supplying and erecting LSZH, PVC armoured multimode optical fiber cable with 6 fibers, with core dia 50/125 µm (OM4) suitable for 10 Gbps ethernet ethernet distance at 850 nm of wavelength, on wall/ ceiling or laid in provided pipe/ trench as per specification	SYSTIMAX/ LEGRAND/PANDUIT	Meter	1440	134	192,960.00
1.13	<b>LIU</b>  Supplying and fixing rack mounted LC type, Including pig tails as per site requirement along with liu loaded along with patch panel lc to lc ALONG WITH OM4 OM4 PATCH CHORD light guide interconnect unit of following ports with adapter panel, splicing tray for termination of optical fibre cables on wall/ provided U rack complete as required.	SYSTIMAX/ LEGRAND/PANDUIT	SETS	16	36,500	584,000.00
1.14	<b>12 Port</b>  [should be equal to Number of Fiber cables arriving from one location to another location and all the fiber shuold be terminated on LIU]	SYSTIMAX/ LEGRAND/PANDUIT	Each	8	8,922	71,376.00
1.15	<b>24 Port</b>  [should be equal to Number of Fiber cables arriving from one location to another location and all the fiber shuold be terminated on LIU]	SYSTIMAX/ LEGRAND/PANDUIT	Each	60	9,942	596,520.00
1.16	<b>CAT6A 24 Port</b>  [should be equal to Number of Fiber cables arriving from one location to another location and all the fiber shuold be terminated on LIU]	SYSTIMAX/ LEGRAND/PANDUIT		20	16,500	330,000.00
1.17	<b>Fiber Optics Pigtail</b>  Supplying and fixing PIGTAIL, MM (OM4) (50), SIMPLEX LC, PC TYPE, 2M as per specification complete	SYSTIMAX/ LEGRAND/PANDUIT	Each	400	1,037	414,800.00
1.18	<b>Fiber Patch Cords</b>  Supplying and plugging LSZH duplex 3meter length, fibre Patch cord LC-LCMM(50) OM4 LSZH duplex complete asper specification No. WG-COC/FPC	SYSTIMAX/ LEGRAND/PANDUIT	Each	160	1,852	296,320.00



DATA AND NETWORKING WORKS BOQ FOR 1ST TO 4TH FLOORS OF SBI LHO, BKC						
ITEM NO.	ITEM DESCRIPTION	APPROVED MAKES	UNIT	QTY.	RATE (in Rs.)	Amount (in Rs.)
1.20	<b>Network L2 POE 24 port Switches (10G)</b>  Supplying, fixing and configuring ethernet managed L2 switch ( <b>CISCO C9200L-24P-4G-E</b> ) of <b>24 POE ports</b> with <b>4 X 10G SFP+</b> ports with dual redundant power supply, stacking as per specification with 3 years back to back OEM warranty 24X7X4  [support includes on site: initial configuring and configuration changes as per IT Dept recommendation or network changes during the Defect Liability period] <b>REMARK :- CLIENT INPUT IS REQUIRED BEFORE PROCEEDING</b>	Cisco/ Juniper/HP				
1.20.1	For CCTV and Access control		Each	4	288,281	1,153,122.00
1.21	<b>Fiber Transceiver</b>  Supplying, fixing and configuring <b>10G</b> based SR module fiber transceiver as per specification [All the port of switches should be populated with fiber SFP ports]	Cisco/ Juniper HP	Each	4	6,874	27,495.00
	<b>TOTAL FOR SECTION F - DATA NETWORKING</b>					<b>21,023,585.00</b>