

BOQ - ELECTRICAL WORK for TDB OFFICE AT FAI HOUSE, NEW DELHI

SR.NO	DESCRIPTION OF ITEM		AMOUNT(Rs.)
I	MAIN LT PANEL /DBs (Eqpt-L&T,ABB,Schneider)	Rs.	
	Maufacturer Make - Green tech power Solution, Hitech, Bindle enterprises		
II	CABELS / MAINS	Rs.	
	Make-Finolex, Havells, Polycab		
	Termination - Commet/Dowels/SPI		
III	WIRING	Rs.	
	Conduit - Polypack,AKG,BEC		
	Make-Finolex, Havells, Polycab		
	Switch/Sockets-Legerand,Havells,Honeywell		
IV	FLOOR -RACEWAYS:	Rs.	
	Green tech power Solution, Grandlay,Indiana		
V	LIGHTING FIXTURES	Rs.	
	Make-Havells, Bajaj, Crompton		
VI	EARTHING JMV, ABB, GMAX	Rs.	
VII	DISH TELEVISION POINT - Airtel/Tata Sky/Vediocon	Rs.	
VIII	CCTV/SAS/FAS SYSTEM WIRING	Rs.	
	CCTV-Hikvision/CpPlus/Samsung		
	Fire Detection System-Agni/Ravels/Havels		
IX	WIRING FOR DATA AND VOICE OUTLETS	Rs.	
	Data Cable - Schneider/Dlink/Systimax		
	Data Socket-Schneider/Dlink/Systimax		
	Telephone Wire-Delton,Finolex,Polycab		
X	FIRE EXTINGUISHERS - Make Agni,Ceasefire,Tyco	Rs.	
XI	Dimmer	Rs.	
	Make - Schneider, L&T, Vision Automation		
	TOTAL FOR ELECTRICAL WORK	Rs.	

Sl. No	Description	QTY	Unit	Rate	Amount
I	MAIN LT PANEL /DBs				
	Supply and installation of main LT panel, wall mounted front operated totally enclosed vermin proof, indoor non-drawout-cubicle type power panel fabricated out of 2mm thk CRCA sheet having gasketed hinged cover on each cubicle fully powder coated after 7 Tank treatment, incorporating horizontal and vertical sleeved copper busbars, complete with all internal wiring, danger board, 2 earthing legs, cable chamber etc as required, housing below mentioned switch gears / meter (GA drawing of the panel got to be approved by Bank / Architect for fabricate the same.)				
1.1	Mains Cum DG Panel				
	2No.,160A,FP, AC3 Duty type contactor + 2 no. , 160A,TP, MCCB with ELR(0-3A) and CBCT + 1 no. as Incomer of 25KA				
	1 Nos. 125A 4P MCCB, 3No. 63A 4P MCCB 25KA				
	1 no., 0-200A, Ammeter with CTand selector switch				
	1no., 0-500V, Voltmeter with selector switch and fuse				
	1Set, TPN, PVC insulated Bus bar suitable for 200 Amp load				
	1 Set, RYB, indicating lamps with resistors and fuses				
	Full Set as above	1	SET		
1.2	Electrical Panel for New Meter				
	125A,TP, MCCB with ELR(0-3A) and CBCT				
	20 Nos. 16-32A SP MCB 10KA, 3 Nos.40A DP MCB 10KA, 2 Nos. 63A TPN MCB 10KA.				
	1 no., 0-125A, Ammeter with CTand selector switch				
	1no., 0-500V, Voltmeter with selector switch and fuse				
	1Set, TPN, PVC insulated Bus bar suitable for 200 Amp load				
	1 Set, RYB, indicating lamps with resistors and fuses				
	Full Set as above	1	SET		
1.3	Suply and installation of 6 way, TP&N 'MCB type Distribution Board(double door) flush mounted on wall, sheet metal fabricated, powder coated, having dust-proof and vermin 'proof, gasketed and hinged door with all internals such as DIN rails, neutral-link, interconnected wiring, complete with earthing legs, housing following switch gears (Double door HORIZONTAL DB)				
	1 no., 63A, 4P RCBO (30mA) incomer				
	18 nos, 6-10A, SP, MCB outgoing				
	Full Set as above	1	SET		
1.4	Suply and installation of 4 way, TP&N 'MCB type Distribution Board(double door) flush mounted on wall, sheet metal fabricated, powder coated, having dust-proof and vermin 'proof, gasketed and hinged door with all internals such as DIN rails, neutral-link, interconnected wiring, complete with earthing legs, housing following switch gears (Double door HORIZONTAL DB)				
	1 no., 100A, 4P MCB incomer				
	12 nos, 16A, SP, MCB outgoing				
	Full Set as above	1	SET		
1.5	S & I of 40/63A, MCB in sheet metal water proof IP-55 enclosure for giving supply	5	No.		
1.6	S & I of 125A, 25 KA ,MCCB in sheet metal enclosure for main switch near meter and stabiliser input etc.	1	Nos.		
	Sub Total				
II	CABELS / MAINS				
2.1	S & I of 1100V grade armoured cable having sector / circular shaped aluminium / copper conductor PVC insulated cores, laid up, PVC tape wrapped inner sheathed, GI strip / wire armoured and overall extruded PVC sheathed confirming to IS: 1554, laid on wall or ceiling using GI clamps and spacers as per route shown at site and further as directed by Bank / Architect in the following sizes.				
a	3 1/2 C X 50 Sq.mm Al Cable	50	Mtr		
b	4C x 16 Sq.mm Copper	25	mtr.		
2.2	S & I of end termination of above mentioned cables including compressed type brass glands, crimping type coper lugs, insulation tape etc. as 'required complete with earthing of glands in following sizes				
a	3 1/2 C X 50 Sq.mm Al Cable	2	Set		
b	4C x 16 Sq.mm Copper	2	Set		
	Sub Total				
III	WIRING				
3.1	Supply & Installation of concealed point wiring using 600v grade 2.5 sqmm copper conductor PVC insulated wires (with proper R,Y,B color code) pulled through haevy gauge PVC conduits laid concealed over false ceiling or in wall chases including circuit wires from the relevant DB and also including 2.5 Sq.mm Green Colour Copper earth wire and provision of grid plate type (ROMA) switches and sockets as approved by Bank / Architect. Each circuit feeding not more than 8 points / 800 W as per the following configuration.				

a	Primary light points including the cost of 5A switch	52	Pts		
b	Secondary light points looped from the above point	45	Pts		
3.2	Exhaust fan point consisting of 5A socket near fan and switch on light switch board	3	Pts		
3.3	Wiring for Signages with 2R x2.5 Sq.mm and 1 Rx 2.5 Sq.mm, PVC insulated copper conductor flexible cable to be connected to the SPN D/D consumer unit installed in ATM room	RO	mtr.		
3.4	Light Power Point - Wiring for 6 Amp power outlet with 2 No.-2.5 Sq mm FRLS PVC insulated multi stranded copper wires in recessed/surface 2 mm thick FR PVC conduit including cut-ting/filling chases, providing conduit with conduit accessories, saddles, supply and fixing of 5 pin 6Amps modular type switched socket with internal wiring in G.I. box, earthing of 3 rd pin with FRLS PVC insulated, green colour 2.5 Sq mm copper wire, complete with all accessories as required. (Note - D.B to First Point)	13	Pts		
3.5	Same as above but loop Light Power Point - Wiring for 6 Amp power outlet with 2 No.-2.5 Sq mm FRLS PVC insulated multi stranded copper wires in recessed/surface 2 mm thick FR PVC conduit including cut-ting/filling chases, providing conduit with conduit accessories, saddles, supply and fixing of 5 pin 6Amps modular type switched socket with internal wiring in G.I. box, earthing of 3 rd pin with FRLS PVC insulated, green colour 2.5 Sq mm copper wire, complete with all accessories as required. (Note - First point to Loop Point)	27	Pts		
3.6	Power Point - Wiring for 6/16 Amp power outlet with 2 No.-4 Sq mm FRLS PVC insulated multi stranded copper wires in recessed/surface 2 mm thick FR PVC conduit including cut-ting/filling chases, providing conduit with conduit accessories, saddles, supply and fixing of 6 pin 6/16Amps modular type switched socket with internal wiring in G.I. box, earthing of 3 rd pin with FRLS PVC insulated, green colour 4 Sq mm copper wire, complete with all accessories as required. (Note - One Point Consider in One Circuit)	5	Pts		
3.7	UPS Power Point - Wiring for 6 Amp power outlet with 2 No.-2.5 Sq mm FRLS PVC insulated multi stranded copper wires in recessed/surface 2 mm thick FR PVC conduit including cut-ting/filling chases, providing conduit with conduit accessories, saddles, supply and fixing of 5 pin 6Amps modular type switched socket with internal wiring in G.I. box, earthing of 3 rd pin with FRLS PVC insulated, green colour 2.5 Sq mm copper wire, complete with all accessories as required. (Note - D.B to First Point)	11	1550		
3.8	Same as above but loop UPS Power Point - Wiring for 6 Amp power outlet with 2 No.-2.5 Sq mm FRLS PVC insulated multi stranded copper wires in recessed/surface 2 mm thick FR PVC conduit including cut-ting/filling chases, providing conduit with conduit accessories, saddles, supply and fixing of 5 pin 6Amps modular type switched socket with internal wiring in G.I. box, earthing of 3 rd pin with FRLS PVC insulated, green colour 2.5 Sq mm copper wire, complete with all accessories as required. (Note - First point to Loop Point)	21	Each		
3.9	Air Cond. point upto 1.5tr - Wiring for air cond. outlet with 2 No.-4 Sq mm FRLS PVC insulated multi stranded copper wires in recessed/surface 2 mm thick FR PVC conduit including cut-ting/filling chases, providing conduit with conduit accessories, saddles, supply and fixing of 25Amp tiny trip MCB with internal wiring in G.I. box, earthing of 3 rd pin with FRLS PVC insulated, green colour 4 Sq mm copper wire, complete with all accessories as required. (Note - One Point Consider in One Circuit)	5	Each		
3.10	Air Cond. point 3.0 tr - Wiring for air cond. outlet with 2 No.-10 Sq mm FRLS PVC insulated multi stranded copper wires in recessed/surface 2 mm thick FR PVC conduit including cut-ting/filling chases, providing conduit with conduit accessories, saddles, supply and fixing of 40Amp Industrial type MCB with internal wiring in G.I. box, earthing of 3 rd pin with FRLS PVC insulated, green colour 4 Sq mm copper wire, complete with all accessories as required. (Note - One Point Consider in One Circuit)	2	Each		
	Sub Total				
IV	FLOOR -RACEWAYS:				
4.1	S & I of floor - raceways consisting of 2 Nos of 3" x 1.5"x 3mm thick rectangular aluminium anodized box sections including chasing and refilling as per the route shown in the drawing and as approved by consultant at site including clamping at every open pipe ends by suitable plastic end covers against entry of dust or anyother foreign material.	10	Mtr		
4.2	S & I of galvanised floor junction boxes with SS brushed finish 14 SWG (2mm Thick) cover properly fixed with screws, for above mentioned raceways , of size 300mm x 300mm x 2.5 mm depth, fabricated out of 2.5 mm thick G.I. sheet with proper cutouts on the sides for pipe entry & screwed top cover with rubber gasket and suitable knockouts for flexible conduit outlets as per the drawing enclosed. The rate should also include a S.S cover of size (450 mm x 450 mm x2 mm) which required to be properly screwed to junction box as required at site.	6	Nos.		
	Sub Total				
V	LIGHTING FIXTURES(Philips/Wipro/Thorn/Crompton)				

5.1	LIGHTING FIXTURES(Havells)				
	S & I of lighting fixtures as per the details given below including necessary hardware such as clamps,nuts, bolts, nails, screws and suspension chains as required for fixing the fixtures in position as directed by architect / Consultant.				
a	Pluto Neo Panel Light 2'X2' of 34W LED	8	Nos.		
b	Endura DL Neo Square Slim Light of 18W LED	43	Nos.		
c	Endura DL Neo 15 Square Light of 15W LED	3	Nos.		
d	Endura DL Neo Circular Light of 18W LED	6	Nos.		
e	Mirror light as per Architect	2	Nos		
f	Mirror light as per Architect	2	Nos		
g	Pluto Neo Panel Light 2'X1' of 34W LED	26	Nos		
h	9W per meter Strip light for cove as per Architect	30	mtr		
i	250mm dia wall mounted exhaust fan of decorative plastic body and blade with louvers on the outside (Newtek/Cromton/Approved Equivalent)	2	Nos.		
j	1200 mm diameter Wall/Ceiling fan in pantry	RO	Nos.		
	Sub Total				
VI	EARTHING				
6.1	S & I of earth pit comprising of 600mm x 600mmx 3mm. thick copper plate buried at a minimum depth of 3.5 meter including necessary materials like charcoal,salt etc as required conforming to BIS standards having brick masonry chamber with hinged cover and watering arrangement.	2	Nos.		
6.2	Extra for depth beyond 3.5 meter earth pit if required in any condition	2	Mtr.		
6.3	Chemical Earthing using Electrode of size 80 mm dia, 3 meter long connected with 50X6 mm Copper internal strip complete with excavation, civil works, cast iron cover with back fill compound. The voltage between Neutral & Earth not to exceed 2 volts. including bore holes wherever required and putting the earth as per requirement.	2	Nos		
6.4	S & I of copper /GI earthing wires/strips in following sizes				
6.5	8 SWG copper bare wire	40	Mtrs		
6.6	12 SWG copper bare wire	0	Mtrs		
6.7	25mm x 3mm thick GI strip	40	Mtrs		
6.8	S & I of isolated earthing / grounding system for computers etc.using insulated green copper earthing wire laid through 20mm PVC conduits from separately made earth pit to the equipment in following sizes				
6.9	6 sqmm copper in 20mm PVC conduit	40	Mtrs		
	Sub Total				
VII	DISH TV POINT				
7.1	S & I of TV socket point flush mounted on wall / partition including cabling till outside the building with connector, Tap off box complete in all respect.	1	No.		
	Sub Total				
VIII	CCTV/Security Alarm/Fire Alarm System Wiring				
8.1	Supply and Laying of following works as per the requirement and specifications of the Security Vendor				
8.2	Supply and Laying of RG-11 Unarmoured Co-axial video cable (ISI marked) through 25 mm PVC conduit (ISI marked) including cost of the conduit for CCTV system	4	pts		
8.3	Supply & Laying of 2 Core 1.5 Sq.mm Un armoured power cable for power supply to cameras-CCTV, Panic Switch,Sensor, Hooters etc.	17	pnts		
8.4	Supply & Laying of 2 Core 1.5 Sq.mm Armoured cable for Fire Alarm System	58	pts		
8.5	S&I of Photo electric(Optical) type Smoke Detector with flashing LED Above the false ceiling where ever required as per the IS standard.	-	no.		
8.6	S&I of Response indicator for the above false ceiling smoke detector	17	no.		
8.7	S&I of Photo electric(Optical) type Smoke Detector with flashing LED Below the false ceiling where ever required as per IS standard.	17	no.		
8.8	S&I of Heat Detector with flashing LED above the false ceiling where ever required as per drawings and as per IS standards	18	no.		
8.9	Providing & Fixing of Hooter with strobe complete in all respect	3	no.		
8.10	Providing & Fixing of Manual Call Point with strobe complete in all respect	2	no.		
8.11	Providing & fixing of 2-Zone fire Alarm panel as per standards complete in all respect.	1	no.		
8.12	Supply & Laying of 4 Core 14/36 Shielded cable for Security Alarm System for motion sensor and Key pad	3	Pnts		
8.13	Supply & Installation of suitable stand for monitor of CCTV	1	Nos		
8.14	Supply & Installation of suitable stand for fixed type CCTV as per Security vendor	4	Nos		
8.15	Providing and fixing of Panic Button, Magnetic lock/Contact,Remote key pad, CCTV complete console,PIR etc as per Drawing complete in all repect.	1	Lot		
	Sub Total				
IX	WIRING FOR DATA AND VOICE OUTLETS				
9.1	Supply and fixing the following sizes of PVC medium grade ISI marked conduits (IS : 9537 Part-III) complete with accessories such as bends, junction boxes, pull boxes etc., in recess or on surface including cutting chases in the walls/floors and making good the same complete as required.				

9.2	25 mm dia 2.0mm wall thickness	180	mts		
9.3	19 mm dia 2.0mm wall thickness	RO	mtr.		
9.4	32 mm dia 2.0mm wall thickness	0	mtr.		
9.5	75mm X75mm PVC box type trunking	60	mtr.		
9.6	Providing and laying Cat 6 cable (Make : Systimax) for data in existing conduits and providing & terminating with RJ-45 (Krone make) with face plates / I/O Ports in suitable modular / MS box from server / EPABX room to individual work stations and terminating other end with RJ-45 connector including numbering with ferule				
9.7	RJ-45 for data points (THROUGH RACEWAYS)	21	points		
9.8	RJ-45 for data points (THROUGH False ceiling and wall)	12	points		
9.9	Providing and laying Cat 5 cable (Make: D-Link) for voice in existing conduits for voice and providing & terminating with RJ-11 (Krone make) with face plates / I/O Ports in suitable modular / MS box from server / EPABX room to individual work stations and terminate the other end with RJ-11 connector or on a Crone module with numbering of each cable with Ferule				
9.10	RJ-11 for Voice (THROUGH RACEWAYS)	21	points		
9.11	RJ-11 for Voice (THROUGH FALSE CEILING AND WALL)	13	points		
9.12	Providing, laying and connecting PVC insulated copper telephone cable of following sizes including termination in approved manner.				
9.13	20-pair	60	mtr.		
9.14	Providing and fixing of telephone tag block (Krone) of following sizes housed in GI box with cover of suitable size including termination				
9.15	20 pair	RO	No.		
9.16	40 pair	1	No.		
	Sub Total				
X	FIRE EXTINGUISHERS				
	Supply installation testing & commissioning of ISI marked FIRE EXTINGUISHERS				
10.1	ABC type - 2Kg	3	No		
10.2	ABC type - 5 /6 Kg	2	No		
10.3	CO2 type -4.5 Kg	1	No		
	Sub Total				
XI	DIMMER LIGHTING				
	Supply, installtion, testing & commissioning of Dimmer of not more than 4No loop of 200 Watt on surface or in recessed in wall with Gi box cabling ,conduit,complete in all respect.	1	No		
	Sub Total				