



**INVITATION OF TENDER
FOR
FURNITURE, CIVIL, ELECTRICAL, COMPUTER
AND LAN WORKS FOR
PROPOSED E- LOBBY AT BRABOURNE ROAD,**

(EXISTING RUNNING BRANCH)

ARCHITECT

**DHAR & ASSOCIATES PVT. LTD.
7, RED CROSS PLACE, 4TH FLOOR, KOLKATA 700 001
2213 1496 / 2230 1266**

SECTION - I

TENDER NOTICE DATED : 19.08.2015

Sealed item rate tenders are invited on behalf of:

**Zonal Manager
Dena Bank, Mangal Kalash, 5th Floor
2A, Shakespeare Sarani
Kolkata - 700 071**

For the following work;

Sl	Particulars	Description
1	Name of the Work	Composite tender for Furniture, Civil, Electrical, Computer, and LAN works of Dena Bank, Proposed E-Lobby at Brabourne Road Branch.
2	Location of Work	DENA BANK, 16A Brabourne Road, Kolkata - 700001, (Near Tea Board)
3	Time of Completion	30 Days (Thirty Days)
4	Earnest Money	Rs 7,440/- (Rupees Seven Thousand Four Hundred Forty only) to be deposited in the form of Crossed Demand Draft drawn in favour of "Dena Bank" , payable at Kolkata. No interest will be paid on the Earnest Money deposit.
5	Tender Cost	500/- (Rupees Five Hundred Only) Non refundable, Payment by DD in favour of "Dena Bank" payable at Kolkata.
6	Eligibility	Only Composite Empanelled Contractor of Dena Bank empanelled as per empanelment Notice in our website & newspaper advertisement dated 01.04.2015
7	Availability of Tender Documents	Dena Bank Zonal Office, Mangal Kalash, 5th floor, 2A, Shakespeare Sarani, Kolkata - 700071 from 10 a.m to 4.30 p.m (Except Sunday & Bank Holidays) and in our website www.denabank.com under head "Tender"
8	Submission of tenders at	Dena Bank, ZONAL Office Mangal Kalash, 5th Floor 2A, Shakespeare Sarani, Kolkata - 71
9	Last Date of Submission	On or before 2.00 P M on 28.08.2015
10	Date of Opening of Tender	At 3.00 PM on 28.08.2015

11	Mode of Submission of Tender	<p>The tender shall be submitted in accordance to the procedure detailed herein. Specified documents shall be sealed & signed by authorized person of the firm in envelope of appropriate size, each of which shall be sealed.</p> <p>i) Envelope marked No.1: Envelope marked no 1 shall contain earnest money deposit, tender cost and conditions of contract with covering letter. ii) Envelope marked no.2: Envelope marked no.2 shall contain the price bid and approved make of materials. iii) Envelope no 3: Envelope marked no 1 & 2 shall be put in a large envelope of adequate size marked no 3 which shall be properly sealed. This envelope, which shall be endorsed on the outside face. “Tender For Furniture, Civil, Electrical, Computer, and LAN works of Dena Bank, Proposed E-Lobby at Brabourne Road Branch.” and addressed to The Zonal Manager, Dena Bank, Zonal Office, Mangal Kalash, 5th Floor, 2A, Shakespeare Sarani, Kolkata – 71.</p>
12	Clarification, if any to be Obtained from:	<p>Architect M/s DHAR & ASSOCIATES PVT. LTD. 7, Red Cross Place, 4th Floor, Kolkata – 700 001 Phone – (033) 2230 1266 E-mail - dhar.associates@gmail.com</p>
13	Drawing	<p>Necessary drawings etc. may be collected from Architect office.</p>
14	Validity of Tender	<p>Six Calendar months from the date of submission of tender.</p>

The employer does not bind it to accept the lowest tender and reserves the right to reject any or all the tenders received without assigning any reason/s there of. The notification of award of contract will be made to the successful bidder only in writing by the Bank.

Yours faithfully

For Dena Bank

Zonal Manager

TERMS & CONDITIONS

1. **Defect Liability Period:** One year after actual completion of work.
2. **Total security deposit (TSD):** 5 % of the total value of the work. This will be released after the defect liability period.
3. **The contractor shall have the responsibility of complying with the local shops/ establishments Act and other labour/ minimum wages Act and shall keep all such records/ accounts on payment of wages/attendance as deemed necessary.**
4. **Arbitration:** As per the standard arbitration clause under the jurisdiction of Calcutta.
5. **Organization:** The contractor shall employ competent / qualified supervisor / Engineer-in-charge who shall be responsible for the day to day work and coordinate as necessary with the Architect's supervisor. Any workman found guilty of misconduct / theft shall be removed from the site.
6. **Damage to property:** Any damage to the Bank's property during the work period will be recovered from the contractor.
7. **The Contractor shall be penalized if the work is not completed within the scheduled time at a rate of Rs.2000 per day.**
8. **The Contractor should be registered under VAT, failing which the tender will be rejected.**
9. **Deduction:** Income tax at source as per I.T Act.
10. **Terms of payment:** Payment after completion of the total project.
11. **Billing Procedure:** All measurements shall be recorded in duplicate on standard measurement sheets prepared jointly by the Architect's Site engineer & the contractor's representatives duly signed by them. All bills shall be submitted along with this checked measurement sheets.
12. **The payment of the bill shall be made as per the actual measurement as certified by the architect.**
13. **The Architect or any officer of the Employers will be free to inspect the work at the site during the period of execution. Any suggestion of change or modification to improve the quality of work will be carried out subject to prior approval of the competent authority of the employers and that of the Architect**
14. **In case of failure to take up the work even after accepting the work order, or leaving the work incomplete, or for defective work not rectified , or violation of the terms and conditions, the Bank may take suitable action against the contractor as appropriate.**
15. **The Contractor shall have to make their own arrangement at their own cost for storing materials, plants, tools etc. The employers will not be liable for security of the Contractor's materials.**
16. **In case of breach of contract by the Contractor for slow progress or works or any other claim of damage, the Employer or the Architect may have the power to re assign the contract without assigning any reasons thereof.**
17. **The Architect shall have the power to ask the contractor to furnish the sample, colour etc. for any materials used / to be used in the works.**

18. The Employer shall not be liable for any damages or compensation payable as a consequence of any accident or injury to any workman or other persons in the employment of the Contractor.
19. On completion of the Works, all rubbish, debris, materials, tools, Labourers, etc. to be removed by the contractor from the site and the contractor will hand over the site clean & clear & in usable condition within 3 days of completion of the works. Failing which, the employer may dispose the materials at the cost of the contractor.
20. In case of any dispute, the matter will be referred to the Zonal Manager, Dena Bank, Zonal Office Kolkata.
21. The rates quoted in the tender shall include all sales tax, excise tax, octroi & other taxes. No escalation of rates will be allowed under any circumstances.
22. This is a running branch, Hence work is to be conducted with minimum disturbance to the branch and debris to be cleared within minimum possible time so that customer service is not hampered during business hours.

For Dena Bank

Zonal Manager

LIST OF RECOMMENDED MATERIAL

01.	COMMERCIAL PLY (BWP-303 BWP)	-:	Archid /Prince / Mayur
02.	Wood Grain / Plain - 1.00mm / 1.5 mm Thick Laminate	-:	Formica / Amulya- Mica / Heritage / 1)Electric Blue 2) Snow white 3) Poly Silver Brushed Laminate.
03.	WOOD (Well Seasoned)	-:	C.P.T.W. / Malayasian /African
04.	SCREWS (M. S. Oxidized)	-:	G. K.W. / Nettle Fold.
05.	BRASS HINGES (Heavy Duty)	-:	Reliance / Janata / Venus / Vijayan / Punit Earl – Bihari
06.	DRAWER SLIDING FITTINGS (TELESCOPIC)	-:	Earl –Bihari (EBCO) / Godrej / Efficient Gadgets / Kich / Sevax / Godrej
07.	HARDWARE	-:	Reliance / Janata / Venus /Shalimar/ Glitters/ Efficient Gadget / Vijayan / Earl-Bihari.
08.	DRAWER SHUTTER / LOCK	-:	Vijayan / Godrej / Efficient Gadgets /Union
09.	BALL CATCH	-:	Magnetic (M.2.) / Brass
10.	DOOR LOCK / HANDLES	-:	4-C Acme, Golden., Godrej, Ultra, Neki, Sevax / Godrej
11.	FLOOR SPRING	-:	Hemco / Efficient Gadets / Everlite/Yale/ Dorma / Sevax / Godrej
12.	ADHESIVE	-:	Fevicol (SH), Fevitate / Araldite / Rouff/ Makbond
13.	STAINLESS STEEL	-:	Salem / Japan 16 Gauge thick.
14.	GLASS TINTED / MIRROR	-:	Saint Gobian / Asahi India
15.	GLASS TINTED	-:	Saint Gobian / Asahi India
16.	FRENCH POLISH	-:	Asian / British Paint / Fevelite
17.	ALUMINUM GRILL	-:	Alumgrill
18.	P.V.C. Flooring	-:	Hanwha / Armstrong / L.G.
19a.	Plastic Emulsion	-:	I.C.I. / Asian / Nerolac / British Paint.

20b.	Synthetic Enamel Paint	:-	Asian / Goodlass / Nerolac / British Paint
21c.	Texture Paint	:-	Nerolac (Sponiging Base coatrustic tuquose Blue no. 7438 – Top coat Silver m002)
22.	MINERAL FIBRE BOARD CEILING	:-	AMF / Saint Gobain
23.	UPHOLSTERY	:-	Golden / Vimal / Orkay / Raymond / Champagne.
24.	WOOD PRESERVATION	:-	Asian Paints / British Paint / Pest Control of India
25.	CEMENT	:-	L&T, Narmada, Manikgad, Ambuja, ACC, Birla, J.K. Cement
26.	SUN CONTROL FILM	:-	Garware / Birla 3M
27.	CASTORS	:-	Relaxo / Paramount
28.	VITRIFIED FLOORING	:-	Kajaria / Johnson & Johnson / Nitco
29.	GRANITE TILES	:-	South Quarry's (Bangalore / Mangalore)
30.	"U" FOAM	:-	Prince / Supreme / Swastik
31.	POLYURETHANE FOAM	:-	Sleepwel
32.	SOFT BOARD	:-	Jolly Board
33.	GLASS WOOL	:-	Fibre Glass / Pilkington
34.	ALUMINUM COMPOSITE PANEL	:-	Eurobond / Durabuild / Alstrong

MODE OF MEASUREMENT FOR PAYMENT

- | | | |
|-----|---|--|
| 01. | Partitions | :- Length X Height upto the soffit of false ceiling including door frames & doors |
| 02. | Paneling with Laminate | :- Length X Height upto the soffit of false ceiling |
| 03. | Paneling with T.W. Moulding | :- -do- (including cost of T.W. Moulding) |
| 04. | Hexagonal surface | :- Overall external periphery X Height |
| 05. | Round Surface | :- Length of circumference X Height |
| 06. | Door | :- Main entrance – Glass – Shutter Length X Height |
| 07. | Tables | :- In Number |
| 08. | Storage | :- Length X Height |
| 09. | Sofa | :- Length including armrest – externally measured |
| 10. | Sofa Chairs | :- Unit |
| 11. | Galvanized False Ceiling | :- Galvanized bottom surface (Length X Breadth) |
| 12. | Plaster of Paris False Ceiling | :- Exposed surface – including moulding (No additional payment will be made for moulding) |
| 13. | Notice Boards Etc. | :- Unit / Number |
| 14. | Steel Monogram | :- Unit |
| 15. | Steel letters of various heights | :- Number |
| 16. | Paintings | :- a) Wall surface – Actual length X Height
:- b) M.S. Grill / Mesh / without frame
:- c) M.S. Collapsible gate of one side
:- d) Cornice – Plain surface of P.O.P. False Ceiling
:- e) Fully paneled Door / Windows with frame :- 2.5 times area of one side
:- f) Partly Paneled / Partly glazed doors windows, partitions with frame and shutters :- 2 times area of one side.
:- g) Fully glazed Window / Partition with frame & shutters :- 1 time area of one side |
| 17. | Granite Flooring | :- Finished Length X Breadth |

- 18. **Granite in Design** :- Finished Length X Breadth
- 19. **Brick Wall** :- Length X Breadth X Height
- 20. **Step / Riser** :- Square Feet
- 21. **Breaking** :- Lump Sum
- 22. **Fibre Glass Roof** :- Length X Breadth of bottom surface only.
:- (No. Curvature shall be considered)
- 23. **Name Board** :- Length X Height
:- (No extra payments for brackets etc.)
- 24. **Delivery** :- All delivery on site.
:- No extra Transportation, Taxes, Octroi etc.
- 25. **Payment** :- Made only to the principal Contractor, No
Payment shall be made to labour, Contractor,
Supplier or Private Financier etc.
- 26. **TAXES** :- Sales Tax, VAT, Turnover Tax, Central
Excise Duty etc.

LAMINATE SAMPLE FOR ' E ' LOBBY
DENA BANK

- | | | |
|-----|---------------|--|
| 01. | FORMICA | - F1 - 1568 (SPS) ELECTRIC BLUE
- F1 - 1324 SUPER WITHE
- F1 - 1651 SILVER |
| 02. | AMULY MICA | - 1306-SF INDIGO BLUE
- 1001-SF SNOW WITHE
- 10101 SILVER |
| 03. | HERITAGE | - 1257 - SD ELECTRIC BLUE
- 1006 - SD BRILLEN WITHE
- 9501 SILVER |
| 04. | HERITAGE | - 1257 - SD ELECTRIC BLUE
- 1006 - SD BRILLEN WITHE
- 9501 SILVER |
| 05. | Texture Paint | - Nerolac (Sponiging Base coatrustic tuquose
Blue no. 7438 - Top coat Silver m002)
OR
Silver Beige Marble Texture) |

LIST OF THE APPROVED MAKE FOR ELECTRICAL WORK FOR DENA BANK

NO.	DESCRIPTION OF MATERIAL		APPROVED MANUFACTURERS
1	Moulded Case Circuit Breaker (MCCB)	1	Siemens
		2	L&T
		3	Schneider
2	Switch Fuse Unit (SFU)	1	Siemens
		2	L&T
		3	Schneider
3	Contactors	1	Siemens
		2	L&T
		3	Schneider
4	Meters	1	Elmeasure
		2	Schneider
		3	HPL
5	LED Indicating Lamps & Push Buttons	1	Siemens
		2	L&T
		3	Teknik
6	Control Fuse Fittings & Fuses	1	Siemens
		2	L&T
		3	EE
7	APFC Relay	1	L&T
		2	SYCON Intelligent Type
		3	HPL
8	Timers	1	Selectron
		2	L&T
		3	Siemens
9	Selector Switches	1	L&T
		2	Kaycee
		3	Selectron
10	LT Cable	1	Polycab
		2	CCI
		3	Finolex
11	Cable Termination	1	Dowells
		2	Comet
		3	Jainson
NO.	DESCRIPTION OF MATERIAL		APPROVED MANUFACTURERS

Electrical Material List			
12	Cable Tray	1	Profab
		2	Asian Ancillary Corporation
13	Conduit Steel / PVC	1	Precisions
		2	MODI
		3	RR
14	Wires	1	Polycab
		2	Finolex
		3	RR
15	Modular Switches & Sockets with PVC / MS Zink Plated Box	1	Anchor Roma
		2	Legrand
		3	Crabtree
16	Distribution Board, MCB & ELMCB	1	Legrand
		2	Schneider
		3	Hager
17	Data/Voice Cable & Accessories	1	D-Link
		2	Amp
		3	Polycab
18	Light Fixtures	1	Wipro
		2	Philips
19	Tubes, PL's & CFL's	1	Philips
		2	Osram
		3	Trulite
20	Ceiling Fan	1	CG
		2	Bajaj
		3	Orient
21	Metal Clad Plug & Sockets	1	CG
		2	MDS
		3	SE
22	Exhaust Fan	1	CG
		2	Alsthom
		3	Bajaj
23	Capacitor Banks Medium Duty Gas Filled (Cylindrical)	1	L&T
		2	EPCOS
		3	Malde

ABSTRACT FOR DETAIL ESTIMATE FOR INTERIOR, & ELECTRICAL WORK OF E-Lobby of DENA BANK at Brabourne Road

ABSTRACT FOR E-Lobby

SL.NO.	DESCRIPTION OF ITEMS	AMOUNT (Rs)
1.0	INTERIOR WORK	
2.0	ELECTRICAL , TELEPHONE & DATA CABLING WORK	
	TOTAL	

Rupees

INTERIOR WORKS

SL. NO.	PARTICULARS	UNIT	QTY	RATE Rs. P.	AMOUNT Rs. P.
1	Full Height Partition With Door (Both Side Laminate Finish)				
	-				
	Providing & Erecting in position approx. 8'-0" to 8'-6" high or as per the actual site condition partitions to be made out of 2" X 2" c.p.t.wood frame work 1'-6"/2'-0" c/c both ways with antitermite chemicals covered with 9mm thick Commercial ply with proper joinery with 3/4" X 3/4" Moulding at both end finish with approved color French polish.The frame work shall be coated with antitermite treatments or chemicals. Teak wood members of partitions shall be rigidly fixed to the existing Ceiling / Floors /Beams & the Side Walls, whichever is applicable & as directed.9mm X 9mm GROOVES shall be provided as directed.All the exposed surfaces of the partition including grooves as required / directed on the site, upto false ceiling height shall be finish with approved make/color 1.00mm thick laminate in 2 or 3 shades.The partition to have hollow flush doors as per the thickness of the partition teak wood thick wooden sections for locks, fittings etc. with 4" X 2" c.p.t.wood frame around with teak wood bracers 2" X 2" at 2'-0" at 2" X 2" c/c both ways with 6mm thick Commercial ply covering on both sides finish with approved make/color 1.00mm thick laminate along with approved make/design Brass Hinges, Powder Coated Brass Stopper & ISI Floor Spring, Brass 8 Lever Locks, Brush Finish S.Steel Handles, Cylindrical Lockable Handles, Door Closure, carting away debris out of the compound, cleaning the site etc. complete as per detail drawing and instructions of Architect.				
	The necessary openings in the partitions shall be provided for A.C. Grill, Electrical Conduits, Electrical Switches, Light Fixtures, Painting, A.C. Opening, Running Display, Speaker, Fire Detectors, Electric Fixtures, Wall Paintings, Planter Boxes,Mirror, Fixtures as per requirements or instructions.				
	<u>Note:</u> - Height of the partitions upto sofit of false ceiling shall be considered for payment but not above it. However the alternate & corner vertical members of the partitions shall continue up to the RCC Ceiling, Beams to the RCC Ceiling, Beams.				
	<u>Mode Of Measurement</u> - Length X Height	Sft.	0		

2	Full Ht. Partition (12mm PLAIN GLASS ENTRANCE PARTITION)				
	-				
	Providing & Fixing 12mm thk plain glass partition made out of 12mm thick PLAIN glass with machine polish at all exposed sides as per site requirement fixed with 6" X 2" c.p.t.wood for top and bottom runner finish with laminate upto 6'-0" in ht. fixed with "D" type Brush finish Stainless Steel Patch Fittings & above 7'-0" in Ht. shall have partition as per the above ITEM NO.B01 (Both Side Laminate shall have Partition) or as per the site requirement etc. Providing & fixing 12mm Thk. Glass Partition between the two machines. The glass will be fixed with 6" X 2" c.p.tw bottom runner finished with navy blue laminate.alongwith Stainless steel 'D' Bracket. Complete as per instructions of the Architect.All exposed surfaces of the partition shall be finish with approved color French Polish along with approved make / design Brush Finish Stainless Steel Handles of 16" in height, Pull & Push Plate, ISI make Heavy Duty Floor Spring, top & bottom 8 Lever Locks, carting away debris out of compound, cleaning the site etc.complete as per detail drawing and instructions of Architect.				
	<u>Mode Of Measurement</u> - Length X Height	Sft.	91.26		
	-				
3	PANELING WITH LAMINATE FINISH (Existing Walls)				
	-				
	Providing & Fixing laminate finish paneling for walls, columns etc. made out of 2"X 1 1/2" c.p.t.wood frame work at every 1'-6" c/c (Vertical/Horizontal) both ways covered with 6mm thick Commercial ply etc. complete. The skirting shall of 4" navy blue laminate finish. All the exposed surfaces of the paneling shall be finish with approved make/color1.00mm thick laminate as instructed by Architect. Necessary opening for (1' x 4') LED rope Lights, conduits, AC Duct or Split, Cabling etc. shall be made as per site requirements etc. complete as per instructions of the Architect.				
	<u>Mode Of Measurement</u> - Length X Height	Sft.	455		
	-				
4	18mm Thick PLY SHUTTER BEHIND MACHINE				
	-				
	Providing & Fixing 18mm thick Commercial ply Boxing with Shutter to cover ATM Machine Switches, Conceal Box, Plate.				
	All exposed surfaces shall be finished with approved make / color 1.00mm thick laminate including necessary approved make/design Brass Hinges, Brass Stopper,Brass Locks etc. inside finishing shall have FRENCH polish of laminate matching color, necessary complete as per instructions of Architect.				
	<u>Mode Of Measurement</u> - Length X Height	Sft.	10		
	-				

4mm Thick ALUMINUM COMPOSITE CLADDING (Façade Area)

	-				
	Designing, providing, custom fabricating & installing Aluminium cladding system comprising of Superbond Eurobond/Durabuild/Alstrong make (or as approved by Consultant) make exterior grade ACP panels (0.5mm thick + 3mm thick core + 0.5mm thick) both sides and aluminium				
	framework as per the given elevation drawings and at all levels and floors/heights. The system is to be designed to with stand & shall be fixed to the RCC structure (structural support only) and/or to the MS Sub-Structure (Structural Support Only) with Sheet Metal Screws, Clamps, Brackets & Anchor Fasteners as approved by the Architect.All Mild steel clamps and brackets shall be Hot dip galvanized minimum 80 microns thick and shall conform to IS: 4759-1996 with PE/PU shims to avoid bimetallic contact. Alternatively 3mm thk chromatised aluminium brackets may be used. Any other Fastening Straps, Sheet Metal Screws, Nuts, Bolts, Rivets, Washers etc.shall be in Stainless Steel 304 Grade.All extruded aluminium sections including cleats shall be minimum 3mm thick.All aluminium extruded sections shall be of 6063 T5 or T6 alloy conforming to ASTM B 221. Rate shall include handling, fabricating & fixing ACP panels.Rate shall include providing open cell polyethylene backer rod, weather sealant,shims etc.The weather sealant silicon shall be Dow Corning 789 (or as per approved by Architect) for vertical Application. Rate also includes scaffolding for cladding work.				
	Note: - Rate to include aluminum framing not just at the perimeter but as required to ensure design parameters are met and should include stiffeners, if required & the same shall not be paid separately.				
	Mode Of Measurement - Length X Height	Sft.	42		
	-				
6	12mm GLASS MAIN DOOR				
	-				
	Providing & Fixing 12mm thk PLAIN glass main door made out of 4" X 2" c.p.t. wood frame for top, bottom finish with approved 1.00mm thk laminate, sides with 1" X 1" c.p.t.wood mouldings of approved design to fixed the glass. The 12mm thk Plain Glass with Garware Film (Ice Dot) or "V" cut engraving fixed in the frame work along with approved Brush Finish stainless steel 1 1/2" Dia Handles as per design with 8 Lever Locks (Top & Bottom), Pull & Push Plate, HEMCO or Equivalent make or ISI make Heavy Duty Floor Spring, Brass Stopper etc. complete as per detail drawing & instructions of Architect.				
	Mode Of Measurement - Length X Height	Sft.	23.68		

7	ROLLING SHUTTER				
	Providing & Fixing rolling shutter partly with grills made out of 18 gauge G.I. Sheet complete with fitting, cover, side track & lock system. The rolling shutter shall be finish with coat of Red Oxide & minimum 3 coats of approved color shade Oil Paints etc. complete as per instructions of Architect.				
	<u>Mode Of Measurement</u> - Length X Height	Sft.	20		
8	TRAP DOOR FOR ROLLING SHUTTER				
	-				
	Providing / Fixing trap door for rolling shutter made out of 2" X 1 1/2" C.P.T.W. frame work covered with 9mm thick Commercial ply from bottom side for shutter frame work covered with 9mm thick Commercial ply from bottom side for shutter & 2" X 2" C.P. T. Wood outer frame with vertical supports upto R.C.C. Slab. All the exposed surfaces shall be finish with approved make / colour 1.00mm thick laminate and 3 coats of ENAMEL paint to inside including necessary approved make/ design Brass Hinges, Concealed Powder Coated Brass Handles, Brass Stopper, Brass Locks, carting away debris out of compound, cleaning etc. complete as per the instructions of Architect.				
	<u>Mode Of Measurement</u> - Length X Height	Sft.	5		
9	CUPBOARD for ELECTRIC LOUVERS (3'-0" X2'-0" X 7'-0")				
	-				
	Providing & Fixing 3" X 1 1/2" c.p.t. wood frame work to the wall along with 18mm thick Commercial ply with 1.00mm thick of approved make/color laminate with teak wood battens strips of 1" X 1" in tapered fashion of approved shade fixed with box hinges & bedding patti finish with 3 coats of French polish & providing Handles,				
	Locks, Ball Catches etc., of approved make/design colour etc. Complete as per instructions of Architect.				
	<u>Mode Of Measurement</u> - Length X Height	Sft.	12		
10	FALSE CEILING / CLADDING WITH PAINTING (Design)				
	-				
	Providing & Fixing suspended gypsum false ceiling, which includes providing and another flange of 30mm & a web of 27mm along with perimeter of ceiling screws fixed to brick wall / partition with the help of nylon sleeves and screws at 600mm centers then suspending G.I. Intermediate channels of size 45mm X 0.9mm thick with 2 flanges of 15mm each from the soffit at 1220mm centers with ceiling angle of width 25 X 10mm X 0.55mm thick fixed to soffit with G.I. & steel expansion fastners only, "Fastners" shall be used for ceiling supports. Ceiling section of 0.55mm thickness having knurled verb of 51.5mm & two flanges of 26mm each with lips of 10.5mm are then fixed to the intermediate channel with the help of connecting clips & in direction perpendicular to the intermediate channel at 457mm centers. 12.5mm tapered edge gypboard (Conforming to IS-2095-1982) is then screws fixed to ceiling to ceiling section with 25mm drywait at				

	230mm centers, additional supports for AC grill shall be fixed as per instructions and AC Plan / Section / Layout.Screw fixing is done mechanically either with screw driver of drilling machine with suitable attachment. The boards are to be jointed and finish so as to have a flush look, which includes filling and finishing the tapered and square edges of the boards with jointing compound, paper tape & two coats of primer suitable for Gypboard.				
	Note :- For light fittings, grills diffusers and cutouts, speakers, fire detectors etc.have to be made with the frame of perimeter channels of size 20 X 27 X 30mm X0.545mm thick, supported suitably as per direction of Architect, Electric or A.C.Consultants & shown as per detail drawing without additional payments.Entire false ceiling shall be finish with 3 coats of ICI. Plastic emulsion paint with				
	Note:- Area of the False Ceiling will be measured in plan i.e. wall to wall.				
	Note: - If Any Existing false ceiling should be removed along with debris out of compound without any extra charge.				
	<u>Mode Of Measurement</u> - Length X Width	Sft.	65		
11	MINERAL FIBRE BOARD FALSE CEILING				
	Providing & Fixing in true horizontal levels AMF false ceiling system (THERMATEX FEINSTRATOS MICRO PERFORATED with FINELINE of 15mm GRID with BLACK GRID REVEAL) of grid size 2'-0" X 2'-0" with G.I. ceiling frame work as per Manufacturer's specifications. (RAL approval) Acoustic ceiling tiles 15mm thick of size 2'-0" X 2'-0" microlook having 0.55 NRC, 38dB & 95% RH & 90% Light Reflector.				
	Smoke Development - 0% Fire Resistance - 120 Minutes A2-s1, d0 and DIN EN 13501-1 The cost of include the cost of frame work for fixing light fixtures. The light fixtures shall not be fixed directly on to the tiles. Complete in all respects as per detail drawings and instructions of Architect.Cutouts will not be deducted while measuring the ceiling area.				
	Note: - If Any Existing false ceiling should be removed along with debris out of site without any extra charge.				
	<u>Mode Of Measurement</u> - Length X Width	Sft.	85		

	-				
12	<u>PLASTIC EMULSION PAINT</u>				
	-				
	Removing the existing color wash/distemper/oil bond distemper / plastic/ luster etc.paint by scrapping, washing and scrubbing. The surface shall then be allowed to dry for atleast 24 hours. It shall be then sand papered to give a smooth & even surface. Holes shall be filled with BIRLA putty made of plaster of paris. Then first coat of primer to be applied. After this necessary leveling shall be done with putty and second primer coat shall be applied. The plastic emulsion paint of approved shade shall be applied in minimum 3 coats (finishing paint) including scaffolding, cleaning the floors, fittings, furniture's, ladders, glasses, removing of debris out of compound etc. complete as per the instructions of the Architect.				
	Paint shall be used of I.C.I. / British paint with pulvi made of Asian / Goodlacs Nerolac.				
	Mode Of Measurement - Length X Height	Sft.	20		
	-				
13	<u>TEXTURISED PAINT</u>				
	-				
	Providing & Fixing Birla/Spectrum/Nitco/Asian make texturised paint after removing existing finishes, plaster & apply texturised paint as per Manufacture's Specification. The base colour will Navy Blue and Top will be "Silver Beige Marble Texture" colour including leveling the existing surface with plaster of paris, cracks will be filled with Chemicals/M-Seal material, 3 coats of Plastic Emulsion Paint etc. complete as per the site requirements & instructions of the Architect.				
	Mode Of Measurement - Length X Height	Sft.	15		
	-				
14	<u>18mm GRANITE CIL FOR DOOR / WINDOW (1'-0" Wide)</u>				
	-				
	Removing existing Door / Window with frame, Providing & Laying in required position 18mm thick approved Granite slab 8" & 4" Wide in two pieces STEP DESIGN for Door / Window Cil in one piece laid on Cement Mortar (1:4) with 10mm to 12mm thick float of cement or fixed to the wall with back coat of plaster in Cement Mortar (1:4) including filling the joints with matching colour cement slurry, rubbing, One / Double EDGE				
	Moulding, scaffolding, polishing, cleaning, carting away debris out of compound, cleaning etc. complete as per instructions of the Architect. (Basic Cost Of Granite Rs.165/- Per SFT)				
	Mode Of Measurement - Length In Running Feet	Sft.	35		

15	VITRIFIED TILE FLOORING (Ivory Colour)				
	-				
	Providing & Laying 2'-0" X 2'-0" X 8mm thick to 10mm thick Italian marble finish vitrified tiles of FIRST quality in approved colors to floor in required position fixed with bed of Cement Mortar (1:4)				
	about 2" to 3" thick including 4mm thick to 5mm thick float of cement, filling the joints with neat matching color cement slurry, rubbing, washing etc. complete as per the instructions of Architect. Cost to be inclusive of taping on all the joints & covered the entire flooring with good quality plastic (300 microns) & POP above. Cover & Tape to be removed good quality plastic (300 microns) & POP above. Cover & Tape to be removed before final cleaning etc. complete as per detail drg. & instructions of Architect. (Basic Cost Of Vitrified Tile Not Less Than Rs.55/- Per SFT)				
	Mode Of Measurement - Length X Width	Sft.	178		
16	CHAIR (5 Years Warranty Except Tapestry)				
	-				
	Providing & Supplying suitable model of chairs for various categories as per details				
	given below:				
	Company Name - Dexon / Amardeep / Lila Décor / Featherlite / Charmi				
	CONTRACTOR MUST SUPPLY SAMPLE CHAIR FOR APPROVAL ON SITE				
	DIMENSIONS				
	MEDIUM BACK				
	Height from Ground Level - 18" INCH				
	Seat Base - 26" DIA				
	Back Height - 22" INCH				
	MEDIUM BACK CHAIR (Basic cost of fabric Rs.225/- per Meter)				
	Supplying Medium Back Chair as per above specification				
	Mode Of Measurement - Per Number	No.	1		
17	SOFA - Two Seater				
	-				
	The sofa shall be made of 3" X 1 1/2" C.P.T. Wood frame work with arms on the either side. 9" vertical type spring shall be fixed with thick nylon thread for the seat. 4"mm foam for seat, 3"mm foam for back & 2"mm foam for handles with covering mix pieces of foam should be spread over the individual seat to have comfort upholstery design				
	(upto Rs.400/- per Meter) etc. complete as per the instructions of the Architect.				
	Mode Of Measurement - Length	Sft.	0		
	-				

18	ACRYLIC SHEET FOR POSTER				
	Shall be made by providing 6mm & 4mm thk clear acrylic sheet to fixed Banks posters of size 2'-0" X 2'-6" along with stainless steel imported projected screws to be fixed on wall or as per instructions of the Architect.	Nos.	4		
19	DOOR MAT				
	Providing good quality imported rubberised door mat of matching color.	Sft.	6		
20	GROUTING OF NEW ATMs				
	Providing and fixing 2'-6" X 2'-6" X 1'-0" cubical containing P.C.C. in situ cement concret 1:3:6 (M-10) of trap metal for Foundation & bedding including dewatering manually, M.S. Frame Structure with anchor fasteners , compacting and curing etc. complete as per instructions of the Architect. and curing etc. complete as per instructions of the Architect.				
	<u>Mode Of Measurement -Per Numbers</u>	Nos.	4		
21	LAMINATED OPEN SHELVES				
	-				
	Providing and fixing of open shelves with 19mm thick finished in both sides matching laminates to place belonging / laptop etc.				
	<u>Mode Of Measurement - Length X Height</u>	Sft.	5		
22	FIRE EXTINGUISHER				
	-				
	Providing and fixing portable Co2 type (5 Kg) fire extinguisher.				
	<u>Mode Of Measurement -Per Numbers</u>	NOS.	2		
23	DUST BIN				
	Providing cylindrical type S.S. dustbin of 9" dia. and 18" height				
	<u>Mode Of Measurement -Per Numbers</u>	NOS.	2		

24	<u>CHEQUE WRITING DESK (5'-0" X 3'-6" X 1'-6")</u>				
	-				
	Providing & Fixing cheque writing desk made out of 18mm thick Commercial ply frame for sides, which shall be finished with Silver Metal Laminate of approved make/color 1.00mm thk laminate. 12mm thick CLEAR Glass shall be fixed at top & side level with machine polish at exposed sides. 12mm thick CLEAR Glass shall be fixed vertically at every 4" c/c with smooth polishing at 4 sides, with below cheque drop box at 3'-0" height of size 5'-0" x 1'-6" in curve shape at vertical and horizontal junctions using 6mm flexible ply finished with matching shade laminates. Including three sides made out of 18mm thick Commercial ply Boxing for Conceal lighting and instructions of the Architect.				
	Mode Of Measurement - Length X Height	Sft.	18		
25	<u>DISMANTLING OF WALL</u>				
	-				
	Dismantling all type of Masonary walls. etc. Including staking servicable materials at site and removing rubbish all complete made as per direction by the Employer/ Architect.	Sft.	75		
26	<u>BRICK WORK</u>				
	-				
	Providing first class Brick work in cement mortar (1:6) including cutting, bonding, plumbing levelling, lining, finishing flush, racking of joints cutting and scaffolding materials and labour complete.	Cft	70		
27	<u>PLASTERING</u>				
	-				
	Providing cement plaster to all internal and external surfaces of walls, ceiling, parapet beams, lintel, facia, Chajja etc. including chipping watering surface, scaffolding, curring, materials and labour complete as per requirement .	Sft.	485		
28	<u>SAND FILLING</u>	Sft.	70		
29	<u>P.C.C. IN FLOORING 1:2:4</u>				
	-				
	Providing & laying 4" thk. Cement concrete in flooring in 1:2:4 proportion, finished with a floating coat of neat cement slurry, etc. Complete. The rate shall be inclusive of compact soil filling for proper levelling.	Sft.	25		

28	TELE BANKING TABLE				
	-				
	Supply & fixing in position free-standing Office table 1200mm X 600mm X 750mm high for Tele Banking Table with 510mm wide keyboard drawer in 19mm BWR block board(IS:1659) and 12/6mm BWR grade Pitwood (IS:303) with 1mm thk.mica laminate on top,side, both side of modesty panel and all exposed surfaces, inside of drawer will be finished with natural colour hi gloss polish, all edges shall have CP teak wood lipping as per design. Table will have one credenza unit (w-400 x D-500 x H-700) consist of one tea tray, three nos heavy duty tele-scopic drawer slides/concealed type auto-closing shutter hinges, godrej central lock,decorative s.s handle, quoted rates shall also include cost of polished steam beech wood moulding (finished 40x20mm section) to edge of table top:polished steam beech wood lipping (6mm thk) to free edges of block board/plywood surfaces all complete as per design and drawing by our Architects.	Each	1		
29	COLUMN CLADDING				
	-				
	Supply & Fixing column cladding as per design, consisting of 12 mm thk. solid marine Ply (IS 710)fixed on column with 37.5mm x 25mm chemically treated hard wood framing, finished with 1 mm mica laminate all complete as per design and specification by our Architects .	Sft.	0		
	GRAND TOTAL				

Total Rupees in Words:

Date:
Place: Kolkata

Signature with Seal of Contractor

ELECTRICAL, COMPUTER & DATA CABLING WORK

SL.No.	Particulars	Unit	QTY	RATE	AMOUNT
A	SECTION - A				
1	MEDIUM VOLTAGE SWITCHGEAR				
	Supplying, installation, testing & commissioning of 125 Amps MCCB with 36 KA breaking capacity in sheet enclosure & L & T/siemens make with all fixing accessories required in Meter room with cable entry box.	No.	1		
2	MAIN DISTRIBUTION PANEL				
	S/I/T/Commissioning of Main distribution panel as per given below 440v AC, 3 phase 50Hz, with 50 KA fault level for 1 second floor wall mounted, 7 tank cleaning process with duly powder coated with copper bus bar.				
a	Incomer -				
	100 A 4 pole MCCB with 36KA breaking capacity - 1 No. Thermal overload release range : 08-1.01r Instantaneous magnetic short circuit trip operation LED type phase indicating lamp (indicating R-Y-B) Voltmeter (0-600v) Ammeter (0-150) with selector switch Danger Notice board indicating sign (DANGER) in hindi, english, bengali				
b	Outgoing -				
b1	63 A TPN MCB - 5 Nos.				
b2	40 A DP MCB - 1 Nos.				
b3	Busbar - 125 A TPN isolated copper busbar with PVC sleeved	Set	1		
3	MAIN LT PANEL				
	Supply & installation of Main LT Panel	Set	0		
	Incomer:				
	100 Amp FP MCCB				
	Cu Busbar, KWH Metering & Indicator Lamp				

1	Supplying, installation, testing & commissioning of LT cable rated for 600/1100 volts AC as per IS standard with necessary accessories							
a1	3.5 Core x 50 sq.mm Aluminium armoured cable from Meter room to main power panel with 2 no of 12 SWG copper earth wire	Mtrs.	0					
a2	2 Nos x 4 sq.mm 1 x 2.5mm PVC insulated copper wire in 25mm pvc pipe for AC	Mtrs.	30					
a3	4 core x 10 sq.mm Cu Armoured Cable with 1 no of 12 SWG copper wire for UPS main / ATM mains	Mtrs.	20					
a4	4 core x 6 sq.mm Copper Armoured Cable with 1 no of 12 SWG Copper earth for ducting unit	Mtrs.	40					
a5	3 Nos x 6 sq.mm PVC insulated Copper wire in 25mm pvc pipe for UPDB	Mtrs.						
a6	4 core x 50 sq. mm Cu Flexible Cable	Mtrs.	0					
a7	4 core x 10 sq. mm Cu Flexible Cable	Mtrs.	25					
a8	4 core x 6 sq. mm Cu Flexible Cable	Mtrs.	35					
a9	3 core x 10 sq. mm Cu Flexible Cable	Mtrs.	20					
a10	2 core x 2.5 sq. mm Cu Arm Cable	Mtrs.	15					
a11	1 core x 16 sq. mm Cu Flexible Wire with PVC Pipe (2 Runs for Body & Dedicated Earthing)	Mtrs.	15					
b	Supplying, installation, Testing & Commissioning of LT cable Termination 3.5 Core x 50 Sq.mm Aluminium armoured cable	Nos.	4					
b1	4 Core x 10 Sqmm	Nos.	6					
b2	3 Core x 4 Sqmm	Nos.	4					
b3	4 Core x 50 Sqmm	Nos.	2					

b4	4C X 10 Sqmm					Nos.	2		
TOTAL OF SECTION - B								Rs.	
C	SECTION - C								
1	LIGHT/FAN/POWER SOCKET POINT WIRING								
	Supplying, installation, testing & commissioning of Light point wiring using 3 nos of 1.5 sqmm copper PVC insulated wire pulled through PVC conduits of 25mm/20mm Gauge thickness switch board to individual light/fan point.All the wiring below false ceiling or on wall must be concealed.All the drops wire from the junction box to the light point must be in flexible pipe gland at the junction box								
	Rate quoted must include the cost of Switches, conceal box, palte ,wire, PVC pipe & required Accessories etc.								
1a	Primary Light Point.					Nos.	10		
1b	Secondary light point looped from above primary light point.					Nos.	6		
1c	Half socket point on lighting board					Nos.	2		
1d	Bell point with indicator type bell					Nos.	0		
1e	Exhaust fan point					Nos.	1		
1f	5 Amp Plug Point					Nos.	2		
2	CIRCUIT WIRING								
	Supplying, installation, testing & commissioning of circuit wiring using 2.5 sqmm x 3 nos of PVC insulated copper wire in 25mm PVC pipe on wall or partition etc.					Mtrs.	35		
3	Supplying, installation, testing & commissioning of 2C X 1.5 Sqmm Wire with PVC Conduit					Mtrs.	35		
TOTAL OF SECTION - C									
D	SECTION - D								
1	FLOOR CONDUITS								

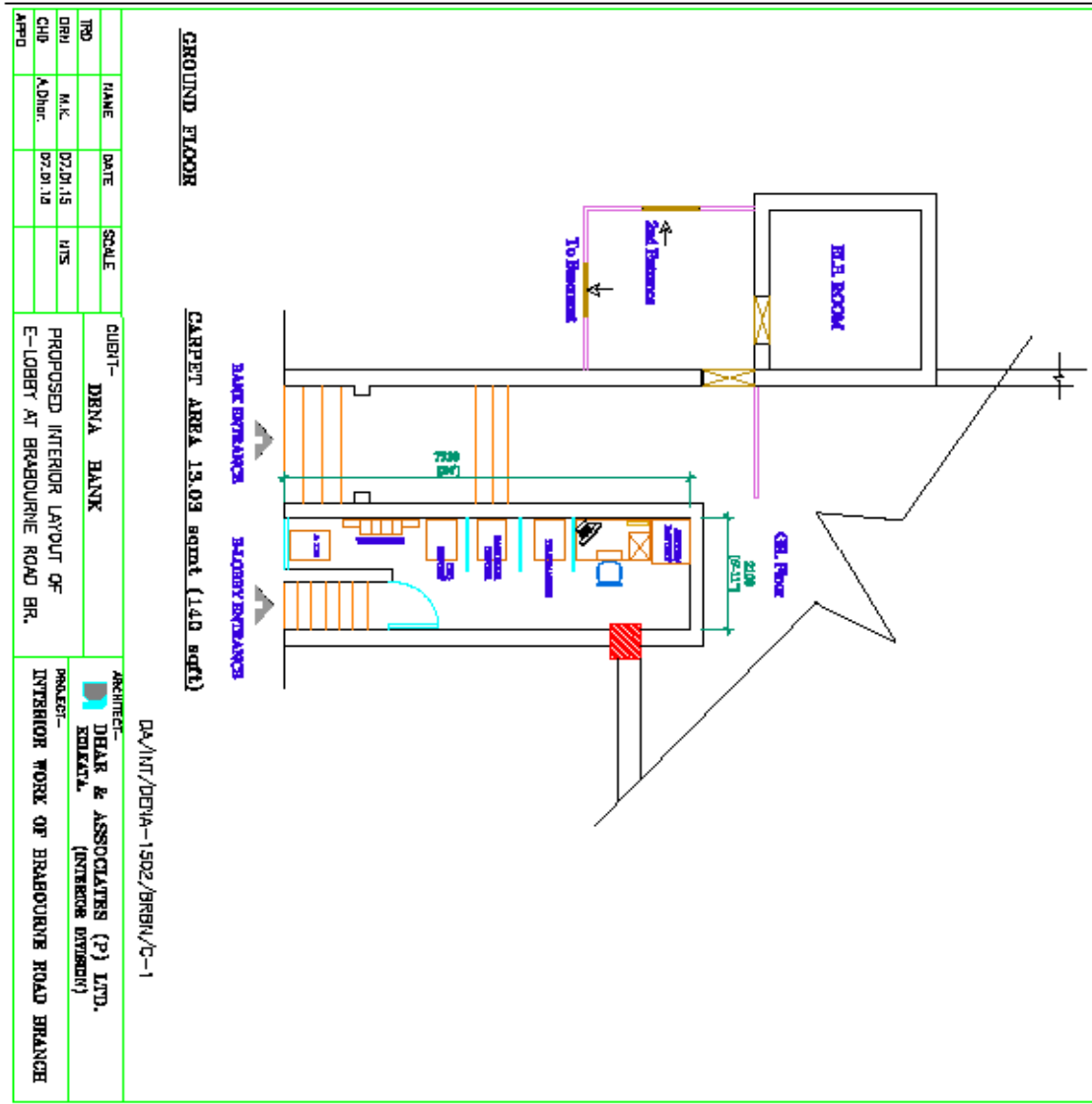
	Supplying, installation, testing & commissioning of following raceways/conduits manufactured as per sizes given below in flooring. The rate shall be inclusive of removing the flooring by cutter & back filling the same with required sand, cement etc.and giving the finishing upto the floor level as per instruction of Architect								
1a	25mm dia PVC heavy conduit (MMS Grade).					Mtrs.	25		
2	FLOOR JUNCTION BOX								
	Supplying, installation, testing & commissioning of following GI junction boxes in floor of 16 SWG thick duly powder coated. The rate shall be inclusive of providing sand, cement, etc.								
2a	150mm x 150mm x 16 SWG junction box with stainless steel cover plate					Nos.	0		
2b	300mm x 300mm x 16 SWG junction box with stainless steel cover plate					Nos.	0		
2c	400mm x 400mm x 16 SWG junction box with stainless steel cover plate					Nos.	0		
3	Supplying, installation, testing & commissioning of 100 x 50mm PVC Trunking					Mtr	0		
TOTAL OF SECTION - D									Rs.
E	SECTION - E								
1	RAW POWER POINT								
	Supplying, installation, testing & commissioning of raw power socket point on skirting walls, for tables using PVC flexible pipe run concealed within walls/partition/work station etc.								
1a	16 A switch & 16 A socket point					Nos.	6		
1b	6 A 3 pin or 5 pin socket & 6 A switch point					Nos.	2		
2	COMPUTER SOCKET POINT								

	Supplying, installation, testing & commissioning of computer socket point on skirting walls, for tables using PVC flexible pipe run concealed within walls/partition/work station etc.						
2a	3 Nos of 6 A socket below work station on 8 module plate & 1 no of 16 A SP switch with indicator above work station	Nos.	3				
3	CIRCUIT WIRING (For UPS/Raw power)						
	S/I/T/Commissioning of circuit wiring using 3 nos of 2.5 sqmm PVC insulated copper wire ISI mark.	Mtrs.	30				
TOTAL OF SECTION - E						Rs.	
F	<u>SECTION - F</u>						
1	<u>LIGHT FIXTURE</u>						
1.1	S & I of lighting fixtures as per the details given below including necessary hardware such as , clamps,nuts, bolts, nails, screws and in position as directed by architect / Consultant. 600MM X 600MM LED light fixture 600mm X 600mm panel of white powder coated CRCA Sheet Hsg. complete with all accessories as per approved technical specification, site requirements & instructions of the Bank / Architect / Consultant. *** TECHNICAL SPECIFICATION: - * Panel should be made of white powder coated CRCA Sheet Hsg. * Lamp Type - Clear / Neutral White LED, * Power Consumption - 32 W to 38 W, * Wattage Of Single LED - 0.15 W to 0.25 W, * Number of LED - Depending Upon Total Power Consumption & Illuminance, * Lamp Colour Temp - 4000 to 6000K, * Light Coverage - 100° to 120°, * Illuminance - 300 - 450 Lux, * Rated Lamp Life - Min. 50,000 Hrs * Visor - Acrylic / Prismatic Sheet, * Heat Dissipation - Negligible.	Nos.	2				
1.2	Motion Sensors- Wattage: 1.2 Watts, Make: PHILIPS/WIPRO/GE	No.	1				
1.3	6" DIA, LED,Spotlight flush mounted	Nos.	6				

	TECHNICAL SPECIFICAITON: - * Housing should be made of white powder coated CRCA Sheet * Lamp Type - Clear / Neutral White LED, * Power Consumption - 18 W, * Wattage Of Single LED - 0.15 W to 0.25 W, * Number of LED - Depending Upon Total Power Consumption & Illuminance, * Lamp Colour Temp - 4000 to 6000K, * Light Coverage - 100° to 120°, * Illuminance - 90 to 150 Lux At A Vertical Height Of 7 Ft. * Rated Lamp Life - Min. 50,000 Hrs * Visor - Acrylic / Prismatic Sheet, * Heat Dissipation - Negligible.					
1.4	4" DIA, LED,Spotlight flush mounted	Nos.	6			
	TECHNICAL SPECIFICAITON: - * Housing should be made of white powder coated CRCA Sheet * Lamp Type - Clear / Neutral White LED, * Power Consumption - 11 W, * Wattage Of Single LED - 0.15 W to 0.25 W, * Number of LED - Depending Upon Total Power Consumption & Illuminance, * Lamp Colour Temp - 4000 to 6000K, * Light Coverage - 100° to 120°, * Illuminance - 90 to 150 Lux At A Vertical Height Of 7 Ft. * Rated Lamp Life - Min. 50,000 Hrs * Visor - Acrylic / Prismatic Sheet, * Heat Dissipation - Negligible.					
1.5	LED Strip Light including the cost of transformer, accessories etc.	Rmt.	0			
1.6	T-5 - for Cone Light	Nos.	0			
1.7	LED Rope light 1 watt each (Philps/wipro) including the cost of transformer, accessories etc.	Rft.	0			
TOTAL OF SECTION - F					Rs.	
G	SECTION - G					
	TELEPHONE					
1	Supplying, installation, testing & commisioning of 20 PAIR telephone unarmoured cable in 32 mm PVC pipe	Mtrs.	0			
2	S/I/T/Commisioning of 50 PAIR telephone tag block with termination & crimping etc. complete	Nos.	0			
3	S/I/T/Commisioning of 2 Model RJ-11 telephone socket	Nos.				

4	S/I/T/C of 2 pair 0.5mm unarmoured telephone cable		Mtrs.			
	TOTAL OF SECTION - G				Rs.	
H	SECTION - H					
	COMPUTER / LAN CABLING					
1	Supplying/installation/testing & Commissioning of CAT-6 cable or AVYWA or Delton or D-Link make run in already LAID aluminium raceways		Mtrs.	0		
2	Supplying/installation/testing & Commissioning of RG 6 Wire with PVC Conduit		Mtrs.	100		
3	Supplying/installation/testing & Commissioning of RJ 45 connector with face plate, I/O with 1M box & required accessories etc.		Nos.	5		
7	Supplying & fixing 24 port jack panel for CAT-6 D-Link make		No.	1		
8	Supplying & fixing 9 U rack XL-B wall mounted rack with accessories fan unit - 1, 6 way 5 A power distribution unit - 1 no, Extra hardware - 1, 1 U cable manager - 1		No.	1		
	TOTAL OF SECTION - H				Rs.	
J	SECTION - I					
	MISCELLANEOUS WORK					
1	Supplying/installation/testing & Commissioning of Earthing station with 600 x 600 x 6mm thick GI plate as per IS rule. Rate shall be inclusive of supply installation of GI plate, 25mm dia GI pipe with funnel for water & 450mm cast iron cover with its frame, Necessary digging of earth pin, excavation back filling of earth, electrode, charcoal, salt layer & brick masonry work in proper manner		Nos.	2		
2	Supplying/installation/testing & Commissioning of 80mm 3 Mtr Long Pipe n Pipe Earthing with Chemical		Set	2		
	TOTAL OF SECTION - I				Rs.	

CIVIL & FURNISHING LAYOUT PLAN



TRD	NAME	DATE	SCALE
DRU	M.K.	02.01.15	H/S
CHD	A.Dhor.	07.01.16	
APPD			

CLIENT - **DENA BANK**

PROPOSED INTERIOR LAYOUT OF
E-LOBBY AT BRABOURNE ROAD BR.

ARCHITECT - **DHAR & ASSOCIATES (P) LTD.**
KOLKATA. (INTERIOR DIVISION)

PROJECT - **INTERIOR WORK OF BRABOURNE ROAD BRANCH**

DA/INT/DEVA-1502/BRBN/C-1

ELECTRICAL LAYOUT PLAN :

