

# TECHNICAL BID

( Part A of tender to be submitted in envelope no 1 along with D.D of 1% of quoted amount)

## C L I E N T

### **THE MAHARSHTRA STATE CO-OPERATIVE BANK LTD.**

(incorporating The Vidarbha Co-operative Bank Ltd.)  
9, Maharashtra Chamber of Commerce Lane,  
Fort,  
Mumbai 400 001

## P R O J E C T

THE MAHARASHTRA STATE CO.OP BANK LTD BRANCH and ATM at NANDED CITY,(Survey No 42/B & 29/A ,Plot No 180, Assadullabad, Nanded ( Vasant Naagar Co-Op Hsg.) **bid**

## T E N D E R ( in two bid systems)

For INTERIOR and ELECTRICAL WORK of above project.

## A R C H I T E C T

### SATYAJIT RANE & ASSOCIATES

Architects / Interior Designers  
M 9890084268  
Email: satyajit.rane@gmail.com

TENDER FEE:                      INR 2000/- (non refundable) payable in DD drawn on THE MAHARSHTRA STATE CO-OPERATIVE BANK LTD, payable at Mumbai

### Tender Issued to:

M/s \_\_\_\_\_  
Address \_\_\_\_\_  
Issued on \_\_\_\_\_  
Last date of submission      ON MAR 29.2017    BEFORE 3.00 P.M  
Tender Opening:                ON MAR 30. 2017    AT 11.0 A.M

Tender to be submitted at:-  
Manager ( Estate and Premises Department)  
3<sup>rd</sup> floor.  
THE MAHARSHTRA STATE CO-OPERATIVE BANK LTD.  
(incorporating The Vidarbha Co-operative Bank Ltd.)  
9, Maharashtra Chamber of Commerce Lane,  
Fort, Mumbai 400 001. ( contact no 022-22800702)

### **Mandatory info. required for Prequalification of the bidder for Interior work of NANDED BRANCH –**

STAMP & SIGNATURE OF CONTRACTOR.

**Important:**

- 1.) Please type or handwrite in capital letters.
- 2.) Attach copies of the supporting documents for details submitted by you.
- 3.) Please use additional sheets if required.
- 4.) If the technical bid is found okay then only will the financial bid will be opened.**

Name of the Bidder :

email address :

Telephone number office :

Fax no. :

Address 1 :

City :

Pin code :

Year of Establishment :

Status of the Firm : Proprietary/Partnership/Pvt. Ltd./Pub. Ltd.

Names of the directors/Partners/proprietor :

Name and address of the Bankers – 1 :

Registration number and date with Registrar of  
Companies/Firms :

PAN Card Number :

Sales Tax Number /Service Tax No/MSEB  
License no.:

Request copies of the Balance sheet :

Current solvency certificate from your Banker  
for not less than Rs. TEN Lacs :

Attach copy.

Empanelment with the other Companies/PSUs

Field of activities :

Main Activity :

Value of the total work done till date :

List particulars of minimum 10 successfully  
completed works during last THREE years  
amounting to Rs. Twenty lacs or more

List Number of Technical staff working in the  
organization :

List number of other staff working in the  
organization :

Have you in past carried out any works for The  
Maharashtra State Co.op Bank ? :

Have you been ever disqualified or levied  
penalty by the Bank in past for non fulfillment  
of the contractual obligations. If yes, please  
provide details in brief. :

Have you been ever been put on a holiday list  
or banned by any Public Sector Units? If yes  
please provide details in brief:

**STAMP & SIGNATURE OF CONTRACTOR.**

**I/We confirm that to the best of our knowledge this information is authentic and accept that any deliberate concealment will amount to disqualification at any stage.** Seal and

Signature of the Bidder/s.

PLACE

date

**STAMP & SIGNATURE OF CONTRACTOR.**

**SATYAJIT RANE & ASSOCIATES**  
**ARCHITECTS, INTERIOR DESIGNERS & GOVERNMENT APPROVED VALUERS**

**1076/24 OLD CHATURSRINGI ROAD, NANDED 411 016**  
**PH NO M 98900 84268 mail satyajit.rane@gmail.com.**

DT 14 feb 2017

To,

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PROJECT: INTERIOR WORK FOR THE MAHARASHTRA STATE CO.OP BANK LTD'S  
BRANCH NANDED.  
SUBJECT: INVITATION TO BID.

Sir,

On behalf of The Maharashtra State Co.op Bank Ltd, Mumbai we are forwarding this tender documents on item rate basis.

PLEASE NOTE:

A) The EMD for the above work is 1% of the estimated by you in Demand draft on any scheduled bank, without which the tender shall be held as invalid.

B) No addition or deletion of pages is allowed in the tender. If done the tender shall be held invalid.

C) Filled in tender is to be stamped and signed on each page by the contractor along with corrections if any, by the contractor. If not so done the tender will be held invalid.

D) The tender is to be filled in neat legible hand writing. Quotations on contractor letter head are not allowed.

The filled in tender is to be returned by 29 MAR 2017 before 3.0 p.m If submitted late the tender will be held invalid.

The following conditions are to considered over and above the conditions mentioned in tender

- 1) Please note that the work is to be done in a New premises. Time is the essence of contract.
- 2) The work is envisaged to completed in 20 Days only. No extension on any ground will be given.
- 3) All painting/false ceiling/carpentry/electrical etc is to be done simultaneously. No plea for delay of work due to various agencies involve will be entertain.
- 4) All line and level in premises is to be checked by the contractor before and adjustments in furniture to be made for the same.
- 5) The first and only running bill amounting to 50% of financial value of contract is to be submitted within 7 Days of the work order issued if not so done final bill only shall be considered.
- 6) Prior to submission of bill all wood work , false ceiling support along with gyp board fixing, first coat of paint, partition framing etc is to be completed. Bill will be not certified if these are not there on site/not done.
- 7) No advance is to be considered or paid for material lying at site.
- 8) The time period mentioned is inclusive of cleaning and fault repairing. The contractor has to vacate the premises on that day. Otherwise penalty per day shall be imposed at Rs 5000/day.
- 9) The Contractor shall check for availability of all items before filling the tender. Excuse of non availability of materials after acceptance of tender will be at contractors risk.
- 10) Non tender/extra work if ask to be done from contractor, it is to be done only on written instructions/order. The time schedule does not change.
- 11) Line out of furniture shall be marked first, measured and got approved from the Architect prior to start of work. ( Maximum 5 days from the work order date).

SATYAJIT RANE  
ARCHITECT  
CA/91/13659

STAMP & SIGNATURE OF CONTRACTOR.

**SATYAJIT RANE & ASSOCIATES**  
**ARCHITECTS, INTERIOR DESIGNERS & GOVERNMENT APPROVED VALUERS**

**1076/24 OLD CHATURSRINGI ROAD, NANDED 411 016**  
**PH NO M 98900 84268** *mail satyaji.rane@gmail.com*

**T E N D E R**

**PROJECT: TENDER FOR INTERIOR WORK OF THE MAHARASHTRA STATE CO.OP BANK LTD'S BRANCH, NANDED .**

GENERAL CONDITIONS

1. Sealed Tenders should be addressed to , The Maharashtra State Co.op Bank Ltd, Mumbai. And super scribed name of work **NANDED BRANCH** and should reach the Bank before **3.0 P.M. On 29 MAR. 2017**
2. No tender will be received after **3.0 PM** on **29 MAR 2017** and tenders will be opened on 30.03.2017 at 11.00A.M. unless otherwise informed.
3. The tenders will remain valid for a period of 2 months from the date of opening of tenders. Bank reserves the right to accept or reject any or all the tenders without assigning any reasons to do so.
4. **At the time of submission every tender must be accompanied by a Demand Draft amounting to One percent of the amount quoted by Contractor in this tender in favor of THE MAHARASHTRA STATE CO.OP BANK LTD as earnest money. No interest will be paid on earnest money. Any tender which is not accompanied by earnest money will be summarily rejected.**
5. The tenders should quote rates in figures as well as in words.
6. All erasures and alterations made initials of tenderers must be attested filling the tender. Overwriting of figures is not permitted.
7. The earnest money deposit of unsuccessful tenderers will be returned within 30 days from the date of opening of tenders.
8. The earnest money of the successful tender shall be adjusted in the security deposit.
9. The bank reserves the right to reject any or all the tenderers, accept part of any tender or entrust the entire work to any contractor or divide the work to more than one contractor (item wise) without assigning any reason or giving explanation. The rate quoted by the contractor will hold good for this bifurcation and no compensation will be paid on this account.
10. Joint tenders shall not be considered.
11. On receipt of intimation from the bank of the acceptance of his tender, the tenderer within 2 days should submit his acceptance of the work. If the successful tenderer fails to undertake the work, the earnest money will be forfeited and acceptance of his tender may be withdrawn.
12. The rates quoted in the tenderer shall include all charges of scaffolding, lift, any tools and plants, railway, freight, labor conditions and fluctuations in the rates excise duty, sales tax, LBT and any other taxes or expenditure for carrying out the work.

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13. The contractor will arrange his water and electricity for completing the work. In case water and electricity are already available at the site, The same will be provided by the bank and **Rs 10,000/-** will be deducted from the bill.
14. No escalation in rates will be allowed under any circumstances.
15. The successful tenderer is bound to carry out entire work within the period stipulated in the appendix. The tenderer will have to pay liquidated damages for non- completion of job within stipulated period at the rate of Rs 5000/- per day after expiry of period of completion subject to maximum of 10% of the contract value.
16. The liquidated damages as mentioned above may not be enforced if the contractor applies for extension of time mentioning the reasons for extension. Extension of time in days will be granted by the bank if it is proved that the contractor is not at fault for extending the work beyond stipulated date of completion.
17. The successful tenderer is bound to carry out items of work necessary for completion of job even though the same are not included in the schedule of quantity. Rates of extra items will be derived from the tender. In case the rates do not exist in the tender and extra item is not similar to the tender item, then the rates will be worked out on actual cost of material and labor, any other expenditure for completing that work plus 15% towards contractor's profit and overheads.
18. The contractor must co-operate with other contractors appointed by the Bank so the entire work shall proceed smoothly with least possible delay and to satisfaction of the Bank.
19. The contractor shall remove all malba etc. Wash and clean the floors walls doors windows furniture etc. and handover the site in proper manner on the completion of work. The debris from the site is to dumped to appropriate municipal dumping ground at no extra cost.
20. The contractor shall acquaint himself with the site conditions making his own arrangement for storing of material at site lift cartage etc.
21. Ten percent of the value of work done shall be deducted as security deposit from running bill of the contractor, half of which i.e. 5% of the total value of work shall be retained for defects liability period ( as mentioned in appendix) and shall be released after defects liability period provided no defects are noticed during the period. The security deposit includes earnest money deposited by the contractor with the tender.
22. The contractor will attend to all defects noticed during defects liability period. If the contractor fails to attend the defects these defects will be rectified by the bank and the expenditure incurred on this account will be recovered from the security deposit.
23. The contractor shall make adequate for watch and ward of material and shall ensure the safety, breakage and any theft of material fixed or unfixed by him or other sub contractors.
24. The work executed should be got approved by the bank and the contractor shall rectify any bad workmanship pointed out at any stage and remove from site all the rejected materials immediately.
25. The contractor shall be responsible for application of labor laws, compensation for injury and accident to person, whether employed by him or by his subcontractor. No responsibility shall be of the bank.
26. The contractor will take necessary precautions for carrying out the work avoiding any damage to structure/decorative parts of the property. The contractor will rectify any damages done at his cost.
27. The contractor shall ensure that the workmen employed by him for the execution of work are suitable covered against Workmen Compensation Act and that all liabilities arising out

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of Workmen's Compensation Act, ESIS and other legislative enactment applicable to such works and workmen shall be to the contractor's account

28. Civil, Electrical, and Sanitary works will be carried out as per Bank's standard drawings/specifications and to the entire satisfaction of the Bank.
29. The contractor shall inform the bank to check measurements of any work which is likely to be hidden before covering.
30. The contractor will submit running bills for the value of work done not less than interim payment ( as mentioned inn the appendix) mentioning full nomenclatures of items, rates, amount, measurement sheets, reasons for part rates claimed, if any.
31. In case of non completion or delay in completion of work or removal defects in time the bank shall be free to appoint another agency to get the job done at contractor's risk and cost.
32. For fixed as well as loose furniture, rates quoted by the contractor shall be inclusive of all taxes including sales tax, LBT, transportation etc. And no extra amount will be paid on this account.
33. Income tax at the prevailing rate will be deducted at source contractor bill and will be deposited with the I.T.O as per rules.
34. The bank may delay the progress of work without in any way vitiating the contract and grant extension of time for the commencement/completion of contract as it may think proper and sufficient in consequence of such delay and the contractor shall not make claim compensation or damage in relation thereof.
35. The contractor will not execute any extra item without Bank's permission in writing.
36. The quantities mentioned in the schedule of quantities are approximate. Payment will be made on the actual work done by the contractor. However the contractor should not deviate the quantity without Bank's permission.
37. Conditional tenders quoted by Contractor is liable to be rejected.
38. The Bank has a right to alter the nature of work and to add or omit any items of work or to have the option of the same carried out departmentally or otherwise and such alternations or variations shall be carried out without prejudices to the contract.
39. The Bank has right to terminate the contract if the Contractor abandons the work or fails to commence and complete the work in time, or fails to abide by the contract conditions.

#### APPENDIX

1.	Defects liability period	TWELEVE MONTHS
2.	Date of Commencement	3 Days from the date of issue of letter awarding the job.
3.	Date of Completion	20 Days total
4.	Minimum value of work done for interim payment	50% of quoted amount.
5.	Security deposit till completionof work.	10% ( including earnest money)
6.	Security Deposit for defects liability Period	5 % of the total value of work
7.	Liquidated damages for non compl- etion of work within stipulated time	Rs 5000/- per day subject to max. Of 10 % of total cost done.

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**LIST OF MATERIALS OF APPROVED BRAND / MANUFACTURER**

(First Quality to be used)

**Unless otherwise approved the following brands shall be used for these works**

<b>NO.</b>	<b>ITEM</b>	<b>PRODUCT NAME / MANUFACTURER</b>
01.	Paint	: ICI/Asian paint/Berger.
02.	Wood Preservative	: Bison by British Paint/ Termiseal by PCI
03.	Plywood	: CENTURY WIN/KITPLY VISTA/
04.	False ceiling	: Armstrong 16MM THK RH99/ Indian Gypsum
05.	Laminate	: Merino/Greenlam/Sunmica/Formica/Century
06.	Screws	: G.K.W /Nettle fold
07.	Adhesive	: Fevicol SH.
08.	Locks	: Godrej
09.	Night Latch	: Godrej
10.	Aluminum Door Frame	: Jindal
11.	Glass :	Modi/Asahi/St. Gobain.
13.	Aluminum Cladding	: Eurobond/Altobond/Alukbond
14.	Keyboard Drawer	: INNOFIT
15.	Telescopic CPU stand	: INNOFIT
16.	Cable Organiser (Wire Manager)	: INNOFIT
17.	Vitrified Tiles	: EURO/RAK
18.	VITFIRIFED TILES	: 600X600MM NITCO/KAJARIA/JOHNSON

**ELECTRICAL WORK TECHNICAL SPECIFICATIONS**

1. The entire installation shall be carried out in accordance with Indian Electricity code and relevant IS standards up to date. The work shall also comply with all statutory regulations of supply agencies, state inspection authorities and fire regulations.
2. Contractor shall be responsible all necessary statutory approvals, clearances, sanctions, drawing approvals and getting actual connections.
3. Definition of terms pertaining to all technical requirements as per IEE/ IS shall apply.
4. Contractor shall submit all necessary drawings for scrutiny and approval by Engineer/ Consultant prior to taking up of works. Contractor shall immediately bring out the difficulties faces in execution of works to the notices of Engineer/ Owner/ Consultant.
5. All material, equipment, fittings used in the installation shall be of approved quality confirming of relevant IS specifications.
6. On completion of works contractor shall carry out all necessary tests such as insulation resistance test, continuity of conductors and earth resistance and functional tests along with commissioning checks to the satisfaction of Consultant/ Engineer.
7. Contractor shall furnish necessary test certificates as required by authorities and Consultant.
8. List of IS standards is attached separately.

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### **LIST OF STANDARD**

01. IS 4648 Code of practice for Electrical layout in Residential Buildings.
02. IS 7320 Electrical wiring Installations (System Voltage not exceeding 650 V)
03. IS 2274 Electrical wiring Installations (System Voltage not exceeding 650 V)
04. IS 3043 Code of practice for earthing.
05. IS 2809 Code of practice for lightning protection.
06. IS 1913 General and safety requirements for electrical lighting fixtures.
07. IS 5319 Guide for safety procedures and practices for electrical work.
08. IS 2268 Electrical call bells and buzzers.
09. IS 3412 Electrical water boilers.
10. IS 2882 Storage type Automatic water Heaters.
11. IS 1646 Protection for Fire safety of building Electrical installation.
12. IS 5908 Electrical Installation in Building Method of measurement.
13. IS 694 Specification for PVC insulated cables for working Voltages up to and including 1100 V.
14. IS 1554 Specification for PVC insulated cables for working Voltages up to and including 1100 V.
15. IS 3961 Recommended current ratings for cables PVC insulated and sheathed.
16. IS 2147 Degree of protection.
17. IS 4237 General requirement for Switchgear and control gear for Voltages not exceeding 1000 VAC and 1200 V.D.C.
18. IS 10118 Code of practice for selection, installation and maintenance of swgr and control gear.
19. IS 8623 Specification of factory built assemblies of switchgear and control gear for voltages up to and including 1000 V AC & 1200 V AC.
20. IS 3106 Code of practice for selection, installation and maintenance of fuses (Voltages not exceeding 600 Volts.)
21. IS 2551 Danger Notice Board.
22. IS 1886 Code of practice for installation and maintenance of transformers.
23. IS 1160 Distribution Transformers.
24. IS 2026 Power Transformers.

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- 25. IS 3639 Fittings and Accessories for Transformers.
- 26. IS 6600 Transformer Oil.
- 27. IS 335 Bushing 100 AC.
- 28. IS 3637 Buchholz's Relay.
- 29. IS 7421 Bushing 100 V AC.
- 30. IS 1271 Electrical Insulation for Thermal Rating.

**M.V.PANELS AND DISTRIBUTION BOARDS**

**1. CONSTRUCTION :**

- 9. The panels shall be free standing, floor mounting compartmentalized cubicle type panels with framed structure and bottom channel frame of suitable section. The frame structure shall be rolled/ folded sheet section of 2.0 MM thick sheet. Partitions shall be 1.6 MM thick. The panel shall be dust and vermin proof with neoprene gasketing. Following minimum clearances shall be adhered to while such designs.
- 10.
  - A. Between phases : 35 MM
  - B. Between Phases & Neutral : 25 MM
  - C. Between Phases & Earth : 25 MM
  - D. Between Neutral & Earth : 25 MM

All installation materials used for supports shall be non-hygroscopic duly treated to withstand high humidity, tropical conditions and stresses due to temperature variations. The panels shall be so designed to provide sufficient space for cable alleys for incoming cables. Removable gland plates shall be provided. Shrouding with Hylum sheet shall be provided for all compartments and live parts such that no live part is exposed directly on opening any door.

**CLEANING AND PAINTING:**

The fabricated sections shall be thoroughly cleaned by 7 tank process which include alkaline degreasing, cold water rinsing, acid pickling, water rinsing, phosphating and passivation. Panels shall then be painted with 2 coats of corrosion resistant primer and oven dried under controlled conditions.

Then 2 coats of stoving enamel paint of approved shades shall be given.

**2. BUSBARS :**

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The bus bar unless otherwise specified shall be of high conductivity aluminum alloy of grade E9 per IS 5082. The bus bar shall be provided with suitable SMC bus bar support suitable for withstanding fault level up to 50 KA. The bus bar shall also withstand above fault level without permanent deterioration. The connections shall be securely done with adequate size of plated hardware plate and spring washer sets. The inter connections shall be made with solid bus bars as far as possible. Bus bars shall be provided with colour coded PVC sleeves.

3. SWITCHGEAR :

The switchgear used in panels shall be pertaining to relevant IS standards and shall be from the approval list. The terminals shall be suitable for accepting bus bars and cables of relevant sizes suiting the switchgear rating. The metal parts other than live contacts shall be treated against corrosion. All switches shall be with door interlocked provision.

4. MEASURING INSTRUMENTS AND INSTRUMENT TRANSFORMER :

Direct reading instruments shall be in confirmation with IS 1248 and of accuracy class 1.0. All meters shall be flused mounting type with minimum 96 X 96 MM size and in dust proof enclosures. The meters shall have white dials with black scales. All meters shall have sealing arrangement and zero adjustment secure from outside.

Voltmeters and ammeters shall be moving iron type with suitable selector switches and protective fuses for potential circuits.

The current transformers shall be single pole wire wound resin cast accuracy class 1.0 for metering and 5p for protection. Separate CT's shall be provided for metering and protection. The polarities shall be prominently marked CT circuits shall be wired with 2.5 Sqm. multistrand copper wires. CT's shall not be kept open and terminal-shortening arrangement shall be provided.

5. INDICATION AND CONTROL :

The control switches shall be rotary type with suitable isolation transformer provided for control supply. Control supply bus shall be provided wherever necessary. Indicating lamps shall be translucent lamp covers and with arrangement to replace bulbs from front. Push buttons shall be momentary contact. Type with suitable color cod and shall be fitted with integral marker plate.

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The control wiring shall be with 1.5 Sqm. multistrand 1100 V gr copper wire except CT Circuit, which shall be with 2.5 Sqm. wires. Identification ferules and color coding shall be used for all wire control fuses shall be provided wherever required. The control wires shall be bunched and traced properly and shall not be left hanging.

#### 6. DISTRIBUTION BOARDS :

The distribution boards shall generally be as per panel specification above. All DB's shall be MCB type suitable for concealed/ surface installation. DB's shall be factory made vertical type with hinged secured front covers, knob protection cover, top and bottom knock outs, earthing studs circuit marking provisions.

The DB shall be completed pre wired with necessary bus bars interconnecting terminals, neutral bus.

The MCB's shall confirm to IS 8828 and shall have 9 KA breaking capacity.

#### 7. INSPECTION AND TESTING :

Inspection and testing for all panels as per IS Standard shall be offered to consultant/ owner's representatives.

### CABLES AND CABLE LAYING

#### A) H. T. CABLES :

- i) The H.T. cables shall be XLPE insulated of appropriate voltage class sheathed, armored multistrand aluminum conductor manufactured in accordance with S 7098 part IS II
- ii) The cables shall be supplied with non-returnable wooden drums in appropriate lengths and shall be free from twists and surface damages.
- iii) The ends of the cables shall be properly sealed and secured so as to avoid water seepage during transit and storage.
- iv) The cables shall be laid at a depth of 1000 MM minimum and shall have 75 MM sand cushion brick box and top RCC protective tile marked "H.T. cables" of size 600 X 225 MM.
- v) Cables shall be laid with the help of jacks and rollers to avoid dragging and twisting. Sufficient loops shall be provided at ends and in center.
- vi) Cables shall be supported with protective pipes and clamps on vertical runs and shall be laid through appropriate pipes for road and gutter crossings.
- vii) Heat shrinkable/ push on jointing kits of reputed makes shall be used for indoor/ outdoor end terminations. Heat shrinkable boots shall be provided for bushing connections.

#### B) L. T. CABLES. :

All power and distribution cables shall be 1100 V grade, PVC insulated and sheathed armored, multistrand aluminum conductor cables unless otherwise specified.  
All control cables shall be 1100 V grade PVC insulated and sheathed armored – multistrand copper conductor cables unless otherwise stated.  
The cables shall confirm to IS 1554-1976 with up to date amendments. Type test certificates of the cables from manufactures for the particular drums shall be provided.

LAYING :

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- The cables shall be thoroughly inspected for transit damage and irregularity in sheath etc.
- i) Sufficient manpower with necessary equipment like jacks, rollers shall be provided for unwinding and laying the cables and dragging and twisting shall be avoided. Proper unwinding methods shall be used to avoid twists.
  - ii) Cables shall be laid at a depth of at least 750 MM foreground level with 50 MM sand bedding, brick box with cushion for protection. Bending radius provision of at least 8 D shall be kept while laying. The trenches shall be filled and reinstated layer by layer leaving crown on top.
  - iii) H.T. & L.T. cables shall be laid in same trench. When more than one cable are laid in same trench a gap of at least 150 mm shall be kept between the cables.
  - iv) Cables laid on walls, trenches shall be supported at every 600 MM for vertical run and every 450 MM for horizontal run. Suitable clamps shall be provided for fixing and support. Vertical runs near ground level shall be protected by GI Pipes of suitable size up to at least 1200 MM.

#### JOINTING :

Jointing or end termination of cables shall be done by skilled person only. Straight through joints shall be avoided as far as possible. The length of the cables are approximate and actual site measurements shall be taken by contractor prior to cutting any cable. Heavy duty compression type brass shall be used for outdoor connections. Crimping type lugs with suitable brass hardware shall be provided for connections.

#### TESTING :

Cables shall be meggered as soon as they are brought to site. Insulation resistance shall also be tested.

- i) After cutting.
- ii) After laying and preparing the joint.  
Following test shall be taken after completing the installation
  - a) Cable continuity.
  - b) Earth continuity.
  - c) Insulation resistance.  
1000 V megger shall be used for testing 3-phase 415-volt system.

<b>POINT WIRING</b>
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#### 1. CONDUITS : ACCESSORIES AND JOINTS :

All conduits shall be HG MS conduits 165 WG up to 25 MM dia and 145 WG above size. All conduit accessories shall be screwed type and conduits shall be joined by means of threaded coupling only. Checknuts shall be provided at all joints for tightening and sealing. Ends of conduits shall be coated with plastic adhesive.

All conduits and accessories shall be painted with 2 coats of Red Oxide before installation and accessible parts of conducting after installation shall be painted with enamel paint to match the wall paint. Capacity of conduits is separately given. In case of rigid PVC conduits, the conduits shall be made using special adhesives used for pressure pipe joints.

#### 2. SURFACE CONDUITING :

The surface conduits shall be fixed with help of 20 SWG saddles on spacers at every 600 MM for vertical run and every 450 MM for horizontal run. The runs shall be straight with suitable sleeves for structural member crossing at the time of costing.

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In case of false ceiling the conduits shall run on walls/ trusses above false ceiling level as far as possible. The connections between such runs and fixtures shall be made with flexible conduits.

### 3. CONCEALED CONDUITING :

the concealed conduit work shall be carried out along with construction of walls prior to plaster. The work covers chasing walls if necessary fixing the conduits, boxes, accessories, redoing the damaged surface. The conduits shall be laid such that they are little below the brick level to avoid cracks. Elbow shall not be used and bends shall be avoided as far as possible using offsets. Pull boxes shall be provided at suitable locations. Deep junction boxes only shall be used in slabs. The pull and junction boxes shall not be clustered at one place and shall be so arranged that they should not be easily seen from heavy movement areas. All cases shall be taken to secure joints and boxes in place. All vertical runs shall be sealed at top.

### 4. SWITCH BOARDS :

The switchboards unless specified in item shall be MS fabricated from 16 SWG sheet steel with all sides except top. Top plate fixing arrangement shall be provided at all corners with tapped holes. At least 1 No. earth stud shall be provided. Switchboard shall be atleast 60 MM. Deep. Switch board shall be painted with 2 coats of Red Oxide primer from inside and outside. In case of surface mounted boards 2 coats of enamel paint of suitable shed shall be given to accessible sides.

The switch plate shall be 2 MM thick while phenol bonded sheet unless specified and shall be fixed with cromplated screws with cap washers.

### 5. SWITCH & SOCKETS :

All 5/15 a switches shall be piano type 240 V grade of approved color and of same shed throughout. 5A Sockets shall be 3 pin and 15 SMP sockets shall be 5 pin (Universal). All switches shall be provided one phase wires only. For power points more than 10 AMP capacity 30 AMP flush type DP switches shall be provided.

### 6. WIRES AND WIRING INSTALLATION:

All wiring shall be carried out with PVC insulated, 1100 V grade multistrand copper conductor wires of specifies sizes.

The conduits shall be ventilated and drained before drawing the wires.

He circuit wires shall be laid in looped formation with suitable termination arrangement in junction boxes. T joints shall be used. No joints shall be allowed in drawn lengths. Crimping type lugs shall be used for switch interconnections. Color codes shall be followed :

Separate earth wire of same class and suitable size shall be drawn along with other wires. Mains and sub mains shall be drawn in separate conduit of adequate capacities with separate earth wires.

All circuit wires shall be meggered for continuity and insulation resistance.

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## 7. WIRING CLASSIFICATION :

- i) Lighting Sub Mains : 2\*2.5 + 1\*1.5 Sqm. wires.
- ii) Light/ Fan/ 5A/ Ex Fan Pts. : 2\*1.5 + 1\*1.5 Sqm. wires.  
Call Bell
- iii) 15 A Point : 2\*2.5 + 1\*1.5 Sqm. wires.
- iv) As above but looped : 2\*4.0 + 1\*2.5 Sqm. up to 1st point.  
2\*2.5 + 1\*1.5 Sqm. for Looped point.
- v) 1 Tone window A/A & 20A : 2\*4.0 + 1\*2.5 Sqm wires.  
Power Point.
- vi) Window A/C 1.5 Tone : 2\*6.0 + 1 \*2.5 Sqm. wires.  
Geyser & 30 AMP Pts.

## 8. CONDUIT CAPACITIES :

WIRE SIZE	1.5	2.5	4.0	6.0	10.0
CONDUIT SIZE					
19/20 MM	4	3	--	--	--
25 MM	5	4	3	2	--
32 MM	8	6	4	4	3
40 MM	12	8	6	5	4

## 9. MOUNTING HEIGHTS (ABOVE FFL) :/ or as shown on drawing

- i) Light Points on Walls : 2250 MM.
- ii) Switch boards DB's : 1200 MM
- iii) Socket outlets : 1200 MM/ 300 MM

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- iv) Telephone Sockets : 130 MM
- v) Geyser outlets : 1500 MM.
- vi) Exhaust Fan outlet : Switch at 1200 MM Socket near Ex. Fan.
- vii) A/C Point : Bellow window sill / Near A/C Equipment.

**APPROVED LIST OF MATERIALS.**

- 1. R M U / OSF : ANDRW YULE / ME 1.
- 2. Lightening Arrestors : ELPRO.
- 3. XLPC Cable joints : M-Seal / Xicon/ Rechem.
- 4. ACBs : L&T / C&S/ Siemens.
- 5. Fuse switch & switch fuse : L&T /C&S /Siemens.
- 6. Change over switches : ELCON/ Havalls.
- 7. Contractors : Siemens / L&T/ Telemeq/ABB.
- 8. Meters : Rishabh (L&T) / AE.
- 9. CTS : AE/ Kappa/UE.
- 10. KWH Meters : OEC / Jaipur/ Gyro.
- 11. Tracector Meters : SIMCO/ L&G.
- 12. Indicating Lamps : L&T/ .
- 13. Rush Buttons : L&T/ .
- 14. Relays (Protections) : EE/Telemechanique (Micro Processes based)
- 15. MCCB : L&T.
- 16. MCB : MDS/ L&T/.
- 17. RCCB : / MDS/ EE.
- 18. MCBDB : MDS/ Indo Kopp.
- 19. Cables : Finolex/ Polycab/
- 20. Glands : Dowels/ EMI.
- 21. Telephone Rag Blocks : ITI.
- 22. Telephone Sockets. : CPL/
- 23. Telephone Cables : Finolex/ Delton.
- 24. PVC Conduits : Precision/ Circle Arc/ Asian.
- 25. Casing Capping : Modi / Precision.
- 26. Wires. : Finolex/ Polycab.
- 27. Switch sockets. : Anchor Roma
- 28. Ceiling Rose, Holders : Anchor Roma
- 29. Lighting Fixtures : HAVELLS/ Philips/ Wipro.
- 30. Ceiling fans : Crompton/ Orient.
- 31. Dimers/ Electronic Regulator : Crompton.
- 32. Exhaust Fans : GEC/Crompton.

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33. Industrial Socket : Crompton/ Northwest.  
35. APFCR : Syntron/ Ridrashakti.

#### SAFETY CODE

1. The first aid appliance adequate supply of sterilized dressings and cotton wool shall be maintained in a readily accessible place.
2. An injured person shall be taken to public hospital without loss of time, in case where the injury necessitates hospitalization.
3. Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from ground.
4. No portable single ladder shall be over 8 meter in length. The width between the side rails shall not be less than 30 cm (clear) and distance between two adjacent range shall not be more than 30 cm. When the ladder is used on an extra mazdoor shall be engaged for holding the ladder.
5. Every opening in the floor of the building as in a working platform be provided with suitable means to prevent fall of persons or materials be providing suitable fencing or railing where minimum height shall be one meter.  
+No floor, roof or other part of structure shall be overloaded with debris or materials as to render it unsafe.

#### Paint :

- i) No paints containing lead or lead products shall be used in the form of paste or ready-made paint.
- ii) Suitable facemask should be supplied for use by the workers when the paint is applied in the form of spray or surface having lead paint rubber and scraped.
6. Overall shall be supplied by the contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during the period of cessation of work.
7. Hoisting machines and tackle used in works, including their attachments, anchorage and supports shall be in perfect condition.
8. The ropes used in hoisting or lowering materials or as a suspension shall be of durable and adequate strength and free from defects.

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To be enclosed in envelope no 2 and labeled "financial bid"

<b>PROJECT</b>		
Civil, Interiors,Electrical,Airconditiong work, branch of		
Maharashtra State Co.op Bank, NANDED Branch		
<i>located at:-</i>		
NANDED CITY BRANCH		
NANDED		
<b>CLIENT</b>		
Maharashtra State Co.op Bank,		
Fort		
Mumbai		
area of premises.(sft)	831 SFT	
<b>ESTIMATE RECAPITULATION</b>		
	<b>BRANCH</b>	ATM
CIVIL/INTERIOR/SOFA/CHAIRS WORK		
ELECTRICAL WORK		
COMPUTER DATA		
FIRE ALARM		
CCTV		
MUSIC SYSTEM		
AIR CONDITIONING		
TOTAL		

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	NANDED BRANCH							
	<b>INTERIOR WORK</b>							
	<b>SUMMARY</b>				<b>BRANCH</b>			
A	CIVIL WORK							
E	FALSE CEILING WORK							
F	FURNITURE WORK							
G	CHAIRS							
	<b>TOTAL INTERIOR WORK</b>							
					<b>BRANCH</b>		<b>ATM</b>	
	CIVIL WORK	unit	qty	rate	amount	qty	rate	amount
7	Collapsible Shutter	sq.m	9					
	Providing and fixing collapsible steel gate in one / two leaves with hot rolled vertical channels of 18x9x3 mm minimum size , crossings of M.S. flats of size 18x5 mm T or E section for runner of minimum 40 x 6 mm size for flange, M.S. flat for top runner of minimum size 40 x 12 mm with roller wheels conforming to grade F.G. 150 fitted with snap headed rivets of minimum size 6mm max spacing of vertical channels be 100mm enclosed gate position and clear space of 150 mm between two sets of crossings with hold fasts, stoppers, spaces, handles, locking arrangement and one coat of red lead primer & oil painting etc. complete. (I.S. 10521-1983) Spec. No. Bd T-57 Page No. 511							
10	ACP Cladding	sq.m	5					
	Providing 3.0mm thk ACP panelling of approved shade and make on aluminum frame work, gaps to be filled with silicone sealant. Complete							
	<b>CIVIL WORK</b>							

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<b>B FALSE CEILING</b>								
A	Gypsum False Ceiling	sq.m	75			10		
	<p>Providing and Fixing Main Frame Suspended ceiling consisting of fixing company made GI channels of 27mm X 0.5 mm thick having one flange of 20mm and another flange of 30mm along with perimeter of the ceiling. Frame should be properly anchored to the MS frame ( item no 8 ) . The suspending GI intermediate channels of size 45mm x 0.55 mm thick with two flanges of each from the soffit @1200 mm centers with GI hangers of 25mm x 0.5mm thick fixed to soffit with GI cleat and steel expansion Anchor fasteners and to intermediate channel with GI nut and bolt. Ceiling section of 0.5mm thickness having knurled wedge of 51.5 mm and flanges of 26mm each with clips of 10.5mm fixed to the int. channels with help of connecting clips in perpendicular direction to the intermediate channels at 450mm center, 12.5mm thick tapered Edge Gypsum plaster board is to be fixed with 25mm screws maintaining proper</p>							
<b>B TOTAL FALSE CEILING</b>								

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<b>E FURNITURE WORK</b>							
1	Partitions						
	Solid/partly glazed partition						
	on ground floor	sq.m	45			0	
	Supplying and erecting full height solid partitions as per drawing and conforming to the following specifications						
	basic frame work :						
	Main frame - G.I Frame work Boral make 51mmx35mm metal studs at 600mmc/c and 51mmx32mm metal tracks at 2'0"c/c with joints staggered to avoid through joints or equivalent with extra frame below slab soffit for conduit to run above. All verticals secured to slab ceiling.						
	skin membrane : 8 mm thick plywood						
	finishing : 1.0 mm thick laminate sheet of same or combination shades as per instructions.						
	glazing :						
	8 mm. thick clear float glass fixed with continuous steam beech wood glazing beads of approved shape (finished 35 x 25 mm) all round , polished and coated with NC lacquer finish. The rate should also include cost for decorative etching film on one side of the glass.						
	The item shall Supplying and fixing in position overall 37 mm thick solid core hot pressed phenol formaldehyde bonded approved flush door shutter finished with 1.0 mm thick laminate sheet of approved shade and quality on both sides of the door shutter including cost of hardware fittings e.g. mortice locks, brass hinges, door handles etc. of approved make and quality.						
	Quoted rates shall include all necessary materials , accessories and labour and also allow provisions for electrical/telephone/computer wiring conduits and switch boxes, etc (Materials for wiring conduits and switch boxes shall be separately paid for.)						

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2	External Glass Door	sq.m	12			3		
	Providing top and bottom ENOX EAPS 32( interlocking glazing profile) member along with 12mm glass ( toughened). The item shall include door of 12mm toughned glass along with Top patch EPF 601 AND EPF 602 Bottom patch, EPF 603, over panel Pivot patch, along with s.s finish handles 300 mm D type, along with EPF 735 Glass door lock with handles, EPF 752 verpanel strike box L patch, complete as per drawing shown Complete							
3	Laminate panelling	sq.m	20			20		
	Providing & fixing on site wall <b>panelling</b> in 6mm ply finished with 1mm laminate. As per design shown and directed by Architect with edge8mm thk agrowoob. lipping finished in polish etc. The panelling shall have gap of 35mm from wall to be provided by 35mmx35mm thk hardwood laminate treated with anti termite for levelling surface and fixed at 600mmx600mm horizontal and vertical ( for concealing conduits pipe) complete.							
4	Column Panelling	sq.m	20					
	Providing & fixing on site wall <b>panelling</b> in 6mm ply finished with 2mmACP . As per design shown and directed by Architect with edge8mm thk agrowoob. lipping finished in polish etc. The panelling shall have gap of 35mm from wall to be provided by 35mmx35mm thk aluminum pipe work for levelling surface and fixed at 600mmx600mm horizontal and vertical ( for concealing conduits pipe) complete.							
5	doors	no	5			0		
	The item shall Supplying and fixing in position overall 37 mm thick solid core hot pressed phenol formaldehyde bonded approved flush door shutter finished with 1.0 mm thick laminate sheet of approved shade and quality on both sides of the door shutter including cost of hardware fittings e.g. mortice locks, brass hinges, door handles etc. of approved make and quality. Along with ply wood box frame finish with 1.0mm laminate Complete							

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6	TABLES							
	<p>Providing &amp; fixing onsite <b>tables</b> made in 18mm ply for vertical &amp; front finished in 1.0mm thick laminate vertical TOP SHALL BE IN 25MM THK POST FORM PRELAMINATED MDF board , all internal surface in, 0.8mm thk white laminate, item to include all hardware, lipping etc. as shown in drawing and as instructions issued by the Architect. The table shall have computer keyboard drawer with lock and cable ring on top surface. The drawer unit shall consist of drawers as shown in drawing with 12mm ply for front and ebco make drawer sides on slides and back. the top shall be in 10mm thk white back painted glass with edge round polish One footrest in salwood section of 70mmx35mm, Providing multipurpose lock and recessed handles of approved make for each of drawer and shelf. Rubber wood beading for all expose surface finished in natural polish Complete</p>							
e	Manager	no	1					
	staff	no	4					
	Cash Cabin	no	1					
7	SIDE CREDENZA	no	3					
	<p>Providing &amp; fixing <b>Side credenza units</b> made in 18mm thk ply front sides horizontal and vertical and back in 6mm plywith front shutter finished in 1.0mm lamiante of approved shade and colour agrowod lipping finished in french polish all internal surface shall be finished in 0.8mm thk white laminate only including all necessary hardware such as Handles ( s.s finish) hinges ( brass anondised) Locks (Ebco make) Magnetic catch etc with 18mm plywood sheleves at 400mm approx c/c etc . The depth of units shall be 450mm.complete.</p>							

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8	STORAGE UNITS	sq.m	6					
	Providing and fixing <b>Full /Low height Storage</b> as PER SPECIFICATIONS.							
	Skeleton - made out of 18 mm. Thk ply at end verticals, top and bottom and verticals 450mm to 600mm Centres as shown in drawing and 6 mm thk back ply.							
	SHELVES - 10mm Thk. Glass edges to de polish, front edge to be rounded.							
	SHUTTERS-made out of 19mm thk. ply externally finished in 1.0mm thk. Laminate and Internally finished in 0.8 mm thk. Laminate as shown or directed by Architect.							
	HINGES - Each shutter shall have autoclosing hinges 3 nos per shutter of 900mm height.							
	BOLTS - Flush tower bolts from inside at top and bottom to the required shutters only - other shutters will have magnetic catch fixed top and bottom.							
	LOCKS - of approved make 4 - lever brass body dead lock with S.S. Key - master key for groups as required.							
	HANDLES - 100mm wide handles of brushed steel handle as approved by the Architect.							
	SKIRTING -100 mm x 9 mm thk plywood for skirting finished in Laminate.							
	FACIA - 4" thk. wide Band finished in 1.0mm thk. Laminate.							
	BACK - Back side of storage to have 6mm thk. commercial ply with 0.8mm white laminate finish							
	Finishing :- All external surface finish with <b>1.0 mm thk Laminate.</b> In side invisible surface complete with 0.8mm thk white laminate. All internal wood-work including back to have coat of anti termite of approved make before lamination.							
E	TOTAL FURNITURE WORK							

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<b>D CHAIRS</b>								
1	type 3	NOS	10					
	low back with fabric finish, without arms rest ( for visitors)							
	Airport style visitors chairs SS finish with padded chairs 3 chairs per seat	NOS	2					
	total							

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	<b>ELECTRICAL</b>				<b>BRANCH</b>		<b>ATM</b>		
1	ELECTRICAL								
2	COMPUTER DATA								
3	FIRE ALARM								
4	CCTV								
	<b>TOTAL</b>								
	AIR CONDITIONING								
	<b>ELECTRICAL WORK</b>				<b>BRANCH</b>		<b>ATM</b>		
NO	ITEM	UNIT	qty	rate	amount	qty	rate	amount	
	<u>SECTION - A</u>								
2	<u>MAIN INCOMING PANEL (MIP)</u> Supply, installation, testing and commissioning of wall /floor mounted indoor type, air insulated, totally enclosed vermin-proof, dead front, cubicle type, 2 mm thick sheet steel enclosure main incoming panel (MIP) suitable for use on 415 V, 3 Ph., 4 wire, 50 Hz. A.C. system, instrumental panel, CTs, incoming and outgoing cable compartment. Each unit shall be accommodated in a totally separate compartment having gasketed hinged door with locking arrangement. The Panel shall be complete with switches of following ratings, interconnection, G.I. earth busbar of adequate size covering the total length of switch board with drilled holes, G.I. bolts, nuts, washers, etc. The cubicle should be painted with 2 (two) coats of light grey synthetic enamel paint over two coats of zinc chromate primer. Danger sign board in English, and Marathi.	nos	1						
	The complete fabrication, construction shall be done as per the detailed specification and conforming to the relevant IS. Name plate of Panel, Danger Board, incoming and outgoing feeders with Ampere rating of switches / change over switch are to be fixed up on front door above or below the respective switches. Short circuit I.C. of all MCBs should be of 10 KA (min.) The contractor shall submit the fabrication drawing for approval before fabrication.								
	The MIP consists of the following								
	<u>INCOMING :</u>								
	1 No. : 415V 100A 4P MCCB (25KA min.) having O/L & S/C protection device.								
	1 No. : 415V 50A TPN MCB								
	1 No. : 0-150A 96mm sq. Ammeter with selector switch (4 positions – 3 way and off);								
	1 No. : 0-60A, 96mm square Ammeter with selector switch (4 positions – 3 way and off);								
	1 Nos. : 0-500V 96mm square Voltmeter with selector switch (4 positions – 3 way and off) ; with fuse base and carrier;								
	6 Nos. : Phase indicating lamps.								
	3 Nos. : 150/5A CTS								
	<u>2 sections of PVC sleeved TPN Tinned Copper Busbar</u>								
	a) 25mm x 6mm for phases & neutral for one section &								
	b) 20mm x 5mm for phases & neutral for other section.								

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	<u>G.I. EARTH BUSBAR</u>								
	25mm x 6mm covering the total length of panel.								
	<u>Outgoing</u>								
	1 nos. 415V 63A TPN MCB								
	3nos. 415V 32A /40A TP MCB								
	6 nos. 240V 32A/40A SP MCB								
	8 nos. 240V 16A/20 A SP MCB								
3	<b>UPS Power Distribution Board</b>	nos	2						
	4 Way TPN DB consist of								
	Incomer: -63 Amps DP MCB - 1 No.								
	<u>Outgoing</u> : - 10/16 Amps SP MCB - 14 Nos.								
3	UPS INPUT/ OUTPUT <b>consist of</b>	nos	4						
	63 Amps/40 Amps DP MCB in MS enclosure box								
4	ATM BOARD: -	nos	1						
	40/32 Amps DP MCB in MS enclosure box								
4	AC POWER DISTRIBUTION BOARD	nos	1						
	4 Way TPN DB consist of								
	Incomer: -63 Amps DP MCB - 1 No.								
	Outgoing: -63 Amps DP MCB - 1 No.								
	<b>TOTAL SECTION A</b>								
	<b>SECTION - B</b>								
	POWER CABLE & TERMINATION: -								
1	Supplying, Installation, Testing & Commissioning of LT Cable rated for 600 / 1100 Volts AC as per IS Standard with necessary accessories and termination as required.								
2	3 .5 Core X 70 Sq.mm. Aluminum armoured cable from Meter Room to Main Power Panel with 2 Nos. of 12 SWG Copper Earth Wire. including crimping	per m	0						
3	4 Core x 6 sq.mm Copper armoured cable with 1 no. of 12 SWG earth wire from MPP to AC DB.	per m	5						
4	10 Sq.mm x 2 nos Copper PVC insulated wire from UPS output to UPS DB with 1 no of 6 sq.mm Copper earth wire.	per m	5						
5	25 sq.mm x 4 nos of lead wire from meter to Main switch in Meter room.	per m	15						
6	2x4 sq.mm +1x1.5 sq.mm thru M.S conduit from main panel to glow sign Board	per m	15						
7	3.5 Core 50 sq.mm PVC insulated Alu armoured cable with 2 nos 8 SWG G.I. wire as running earth.	per m	15						
	<b>TOTAL SECTION B</b>								

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SECTION - C							
LIGHT POINT with WIRING							
Note: The point mention below is inclusive of circuit wiring. Aa Switch boards should be connected with separate circuit from main panel							
Point wiring with 1100 V grade 3 nos. single core 1.5 sq.mm. (1 for phase, 1 (black colour) for common neutral by looping method and 1 (green colour) for common earth by looping method) PVC insulated flexible FRLS copper conductor cable (IS:694) through PVC Conduits of 25mm/20mm of 16 guage thickness (ISI marked embossed on conduit surface) complete with junction box, circular box, elbows, bends, couplers and other accessories on surface above false ceiling or concealed by chase cutting on wall from light & fan switch board to light, fan & 6A socket outlet on the same switch board or separately mounted switch board. The work includes supply and fixing of all materials as specified make modular type 6A switch for each light and fan point, 6A 2/3 pin shuttered socket outlet with switch, 3 plate ceiling rose / angle or batten holder etc. as required.							
The point wiring also includes circuit wiring with 1100 V grade 2 nos. single core 2.5 sq.mm. (1 for phase and 1 (Black colour) for neutral) + 1 no. single core 1.5 sq.mm. (Green colour for earth) PVC insulated flexible (FRLS) copper conductor cable (IS:694) through suitable size PVC. conduit as described above from DB to switch board, interconnection, mending good all damages to original finish, painting etc. as required to be completed in all respect. All connections of wires to be done by means of "Wago" type connectors. (All wiring in strong room, locker room, records & stationery room will be of surface conduit type).							
1	Primary Light Point	nos	15			5	
	Two Light Point control by one switch	nos	12				
2	Wall Bracket Fan Point with 2/3 Pin socket ( to be installed at Fan height and switch)	nos	4				
3	Ceiling Fan Point with supply and fixing of 2 Module step regulator/dimmer ( 280 W min)	nos	0				
4	Exhaust Fan Point	nos	2			1	
5	Call Bell Point with Push Bell (Indicator Type or Ding Dong)	nos	1				
6	1x6A 2/3 pin shuttered socket with switch on separate switch board other than fan/light switch board.	nos	3				
7	1x6A 2/3 pin shuttered socket with switch on separate switch board on than fan/light switch board.	nos	3				
8	1x16A 5 pin shuttered socket with switch on separate switch board on than fan/light switch board.	nos	3				
9	AC POWER POINT with WIRING: -	nos	5				

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	A.C. power point wiring from DB with 1100 volt grade 2 Nos. single core 4 sq.mm. + 1 No. 2.5sq.mm. (Green colour for earthing) PVC insulated flexible FRLS copper conductor cable through suitable size M.S. conduit (ISI marked embossed on conduit surface) complete with junction box, circular box, elbows, bends, couplers and other accessories on surface above false ceiling or concealed by chase cutting on wall. The work includes supply & fixing by chase cutting on wall, 'North-West' make A.C. power unit having 25A 3 pin socket with matching plug, 20A Starter in sheet steel enclosure with 4 module plate, mounting box complete with interconnection, mending good all damages to original finish, painting etc. as required. All connections of wires to be done by means of 'Wago' type connectors.						
10	Supply and fixing of 16/6A 6 pin shuttered socket outlet with switch & indicator, mounting box and suitable size front plate on wall just opposite to Switch Board of Strong Room / Locker Room and supply of 1.1 KV grade 3 core 2.5 sq.mm. round PVC insulated and PVC sheathed flexible copper conductor cable of 1.5 meter length having one (1) no. 16A 3 pin plug at one end and the other end will be permanently connected to the Switch Board inside the room including interconnection, chase cutting, mending good all damages to original finish, painting, etc. as required.	NO	1				
<b>TOTAL SECTION B</b>							
<b>SECTION - D</b>							
FLOOR RACEWAYS & CONDUITS: -							
	Supplying, Installation, Testing & Commissioning of following raceways /conduits 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 instructions of Architect If conduits are required to be fixed on wall it shall be done by making chase cutting on wall through partition. The work includes making good all damages to original finish, paiting etc as required.						
1	50mm X 25mm X 2mm thick Aluminum Raceways. ( <u>Make</u> - Hindustan / Jindal)	nos	20				
2	80mm X 40mm X 2mm thick Aluminum Raceways. ( <u>Make</u> - Hindustan / Jindal)	nos	25				
3	25mm Dia PVC heavy conduit pipe. ( <u>Make</u> - Precision / polycab)	nos	15				

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	FLOOR JUNCTION BOX: - Supplying, Installation, Testing & Commissioning of following MS junction boxes in floor of 14 SWG thick duly painted. The rate shall be inclusive of providing Sand, Cement etc. and finishing the same upto the floor level as per instructions of the Architect.						
4	150mm X 150mm X 2mm thick junction box with stainless steel cover plate.	nos	5				
5	300mm X 300mm X 2mm thick junction box with stainless steel cover plate.	nos	2				
6	75mm X 75mm X 2mm thick junction box with stainless steel cover plate.	nos	2				
	<b>TOTAL OF SECTION - D</b>						
	SECTION - E						
	COMPUTER SOCKET POINT: - ( thru UPS supply only)	Set	9				
	Computer socket outlet cluster point wiring with 1100 V grade 3 nos. single core (1 for earth, green colour) 1.5 sq.mm. PVC insulated flexible FRLS copper conductor cable conforming to IS : 694 through suitable size rigid PVC.conduit (ISI mark embossed on conduit surface) and conduit accessories partly through concealed in wall, embedded in floor, partly on surface above false ceiling and partly through partition or through flexible conduit from CDB to computer socket outlet cluster as detailed below and upto connection of 2 nos. socket clusters in 1 (one) circuit connecting by looping method. The work includes supply and fixing of socket outlet clusters components (Legrand/North - west/Novar make) as detailed below.						
	Each computer socket outlet cluster comprising the following :						
	3 nos. 6A 2/3 pin modular type shuttered socket						
	3 nos. 6A modular type controlling switch						
	1 no. 16 /6A 6 pin modular type shuttered socket						
	1 no. 16A modular type controlling switch						
	1 no. Front cover of suitable size						
	1 no. Mounting box of suitable size						
	Note:- All power supply is thru UPS DB. The Control switch is to be located in another board above table. The supply socket is located on another board below table.						
	<b>TOTAL OF SECTION - E</b>						

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	SECTION - F						
	LIGHT FIXTURE: -						
	Supplying, Installation, Testing & Commissioning of following light fixtures complete of approved make as per specification with all fitting, accessories such as Junction Box, Hardware, Starter, Connector, Lamps, Tube etc. fittings and make as mentioned below on Ceiling/ wooden framework approved by Architect. (Before Installation Sample must be shown to Architect )						
1	SYSKA make 600x600mm fittings LED	no	12				
2	SYSKA make LED light	no	12			4	
3	SYSKA make LED Tubelite	no	10			1	
4	SYSKA make patti tubelite	no	0				
5	Havells make exterior fitting	no	0				
6	CROMPTON CEILING FAN 1200MM dia, white colour with all accessories.	no	0				
7	300mm Exhaust fan with all accessories with mounting ring and louver Complete( white colour only ) GEC make.	no	2			1	
8	400mmdia wall/ceiling bracket fan with all accessories ( White Colour Only)	no	6				
9	Supplying and fixing on wall call bell buzzer (approved by Consultant) suitable for 240 volt single phase A.C. supply including interconnection, etc. as required.	no	1				
	<b>TOTAL OF SECTION - F</b>						
	SECTION - G						
	TELEPHONE CABLING: -	per m	45				
1	S/I/T/Commissioning of 20 pair telephone unarmoured cable from service point to Krone Box (Make - Finolex / Delton / Polycab)						
2	<u>TELEPHONE JUNCTION BOX</u>	per nos	1				
	Supply and fixing of 25 pair telephone junction box "Krone" make on wall /furniture/partiion with hinged cover and screwed type tag strips complete with chase cutting, mending good, painting etc. as required. (Make - Krone type Delton / ITL)						
3	<u>TELEPHONE WIRING</u>	per m	120				
	Supplying and laying of 2 paid 0.50 mm dia Telephone cable through pre - laid rigid PVC conduit as shown in the drawing or otherwise as directed by the consultant from Telephone Junction box to Telephone socket outlet including interconnection, mending good, etc, as required to be completed in all respect.						
4	<u>TELEPHONE SOCKET</u>	per nos	8				
	Supply and fixing on wall / furniture / partition recessed type Legrand/North - West/Novar make Telephone socket outlet (RJ 11) with mounting box & front plate as shown in the drawing complete with chase cutting, mending good etc. as required.						
	<b>TOTAL OF SECTION - G</b>						

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	SECTION - H						
	MISCELLANEOUS WORK: -						
3.5.1	Earthing the installation as per I.E. rules conforming to IS:3043-1987 or its latest amendment by making earth station with 600mm x 600mm x 6mm (minimum) thick copper plate electrode to be installed such that its top edge shall be at a minimum depth of 3.0 metre below ground level after preparation of ground with charcoal and salt and connecting the 25mm x 6mm copper earth lead-in-strip (upto 10 metre length) by bolting and then brazing to the copper plate complete with copper bolts of suitable length double nuts and washers including supply and fixing of 50mm dia. partly perforated G.I. pipe with funnel for watering arrangement. The copper earth lead-in-strip shall be PVC sleeved / insulated throughout the total length and the underground portion to be laid through suitable size heavy duty rigid PVC conduit (ISI mark embossed on conduit surface) at an average depth of 500mm below ground level.						
	The earthing installation should be provided with 300mm x 300mm and 300mm depth inside dimension masonry inspection pit with C.I. hinged cover having locking arrangement and restoring the surfaces duly rammed	Each	2			1	
3.5.2	Earth lead-in-strip exceeding 10 metre length as mentioned in item no. 3.5.1. with supply and fixing of 25mm x 6mm copper strip having PVC sleeved / insulated to be fixed on wall surface with tinned copper bar saddles / clamps at an interval of 300mm etc. as required to be completed in all respect. Minimum clearance between wall surface and copper earth lead-in-strip should be 6mm.	Mtr.	15				
	<b>TOTAL OF SECTION - H</b>						
	SECTION - i						
	DATA CABLING						
	SUPPLY & INSTALLATION OF CAT 6 UTP CABLE	per m	200				
	CAT 6 INFORMATION OUTLET WITH FACE PLATE	per no	9				
	24 PORT CAT 6 JACK PANNEL	per no	1				
	3 FT. PATCH CORD CAT 6	per no	9				
	7 FT. PATCH CORD CAT 6	per no	9				
	24 PORT 10/100 FAST ETHERNET SWITCH	per no	1				
	12 U WALL MOUNTING 19" STANDARED NETWORKING RACK	per no	1				
	TOTAL OF SECTION - i		1				
	<b>SUMMARY</b>						
	<b>TOTAL SECTION A</b>						
	<b>TOTAL SECTION B</b>						
	<b>TOTAL SECTION C</b>						
	<b>TOTAL SECTION D</b>						
	<b>TOTAL SECTION E</b>						
	<b>TOTAL SECTION F</b>						
	<b>TOTAL SECTION G</b>						
	<b>TOTAL SECTION H</b>						
	<b>GRAND TOTAL</b>						
	DATA AMOUNT						

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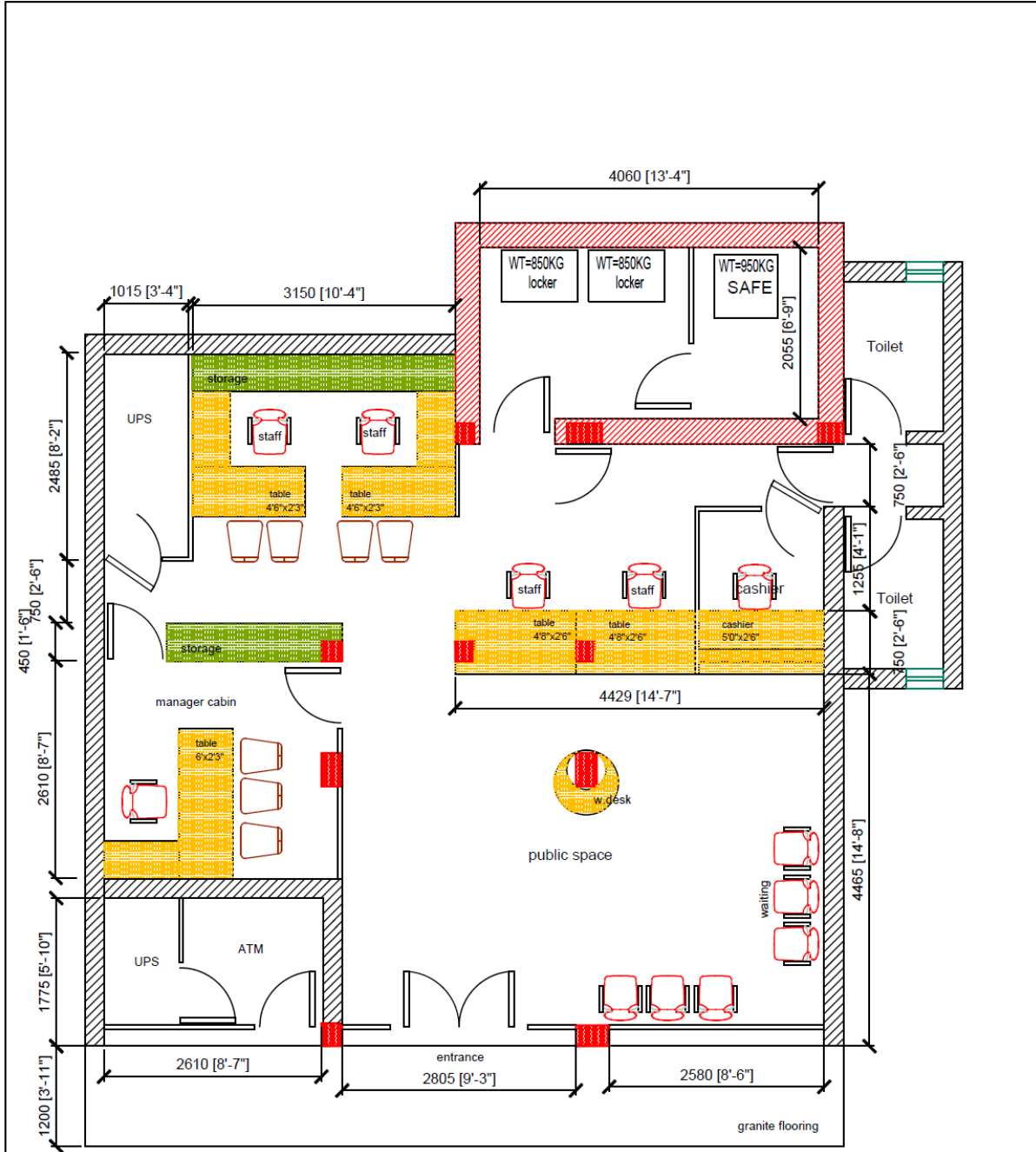


E. FIRE ALARM & DETECTION SYSTEM							
1	<b>FIRE ALARM &amp; DETECTION SYSTEM</b>						
	Supply , installation , testing and commissioning of 2 zone local Fire Alarm Control panel with 24 Volt maintenance free battery & charger rectifier with mounting base.	Each	1				
2	<b>SMOKE DETECTOR</b>						
	Supply , installation , testing and commissioning of following smoke detectors complete with mounting base						
2	Ionisation type detector	Each	4			1	
2	Optical type detector	Each	4				
3	<b>Heat Detector</b>						
	Supply, installation, testing and commissioning of Ionization type heat detector complete with mounting base.	Each	4			1	
4	Supply, installation, testing and commissioning of Response Indicator.	Each	4				
5	<b>MANNUAL CALL POINT</b>						
	Supply , installation , testing and commissioning of manual call point (MCP) insheet steel box with hammer & chain.	Each	2				
6	<b>HOOTER</b>	Each	2			1	
	Supply , installation , testing and commissioning of flasher cum electronic hooter (dual tone).						
7	<b>CABLE</b>	Mtr.	70			25	
	Supply, laying & termination of sockets/connectors of 2 core 1.5 sq.mm PVC insulated armoured copper cable onwall/ceiling bymeans of saddles for connection of smoke detectors / Heat Detector including manding good ,painting etc. as required.						
8	Supply and laying of 2 Nos. single core PVC insulated copper wire through suitable size flexible M.S conduit for connection of Smoke Detector (above false ceiling) with Response Indicator.	Mtr.	45			15	
9	Supplying and fixing of Emergency Exit Sign board of approved size on wall with photo- luminiscent tapes.	Each	3				
10	Supply and installation of CO <sub>2</sub> (4.5 Kg) type fire extinguisher (ISI mark).	Each	4				
11	Supply and installation of 32 A FP changeover switch for server UPS	Each	1				
<b>TOTAL ( FIRE ALARM &amp; DETECTION SYSTEM)</b>							
<b>CCTV</b>							
1	4 CH VIDEO, 1CH AUDIO; RECORDING CAPACITY: 720P REALTIME , FULL CHANNEL PLAYBACK SYNCHRONOUSLY; SUPPORT 2 HDD UPTO 8TB; MAKE CP PLUS HDMI, VGA;	no	1				
2	1/2.9" MEGAPIXEL CMOS, 25/30FPS@720P, 3.6MM FIXED LENS, IR LEDS LENGTH 20M, HIGH SPEED, LONG DISTANCE REALTIME TRANSMISSION, WHITE CASE MAKE CP PLUS GERMANY	no	4			1	
3	PS12/3 POWER SUPPLY 3 AMPS 12 VOLT	no	1				
5	CONNECTOR/ACCESSORIES	no	4				
6	WIRE CO-AXIAL RG 59 +2 CORE + LAYING	rm	100				
7	MONITOR DELL 18.5 INCH	no	1				
	total						

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<b>AIR CONDITIONING</b>								
no	item	unit	Qty	rate	amt	Qty	rate	amt
	<b>PART A: SUPPLY OF MACHINARY</b>							
1	Air Cooled packaged Air Conditioning System ( 3 STAR RATING)							
	Supplying and erecting split type room Airconditioning unit ( tonnage as mentioned below) ton capacity suitable to operate on 250 Volts, 50 cycles,A.C. supply having 1 Nos. of air handling units highwall mounting type having cooling capacity as per capacity mentioned below and the condensing unit connected with 12/9 mm copper piping upto 5 mtr. duly insulated and 3 core copper flexible cord of required length etc. and stand for condensing unit with testing etc. complete and marking Sr.No. and date of erection and remote. Complete.							
1a	Capacity of unit = 2 T SPILT AC WALL mount AC ( In main Banking hall )	NO						
1B	Capacity of unit = 1 T SPILT AC WALL mount AC ( In main Banking hall )	NO				2		
	TIMER	NO				1		
	<b>PART A: SUPPLY OF MACHINARY TOTAL COST</b>							
	<b>PART B: INSTALLATION WORK</b>							
2	ADDITIONAL COPPER PIPING	per m				5		
	Copper piping between indoor and outdoor unit. Suction line to be insulated with elastometric nitrile rubber tubular insulation of 9mm thickness and joints sealed with black moonsoon tape, with electrical wiring Complete							
3	DRAIN PIPE	per m				5		
	Drain piping of 25mm dia PVC pipe for drainage of condensate.( Prince/supreme make)							
4	STANDS	nos				2		
	MS Stands/brackets for unit along with level adjustment.							
5	INSTALLATION CHARGES	nos				2		
6	Piping concealing work, Making chases in the wall filling with P.O.P making good the surface,	per m				10		
	<b>PART B: TOTAL INSTALLATION WORK</b>							
	<b>PART A</b>							
	<b>PART B</b>							
	<b>TOTAL COST of AIRCONDITIONING</b>							

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road

carpet area of premises  
 ground floor area = 831 sft  
 Toilets area = 60 sft (yet to be constructed)

client	project	drawing shows	architects	drg no
MSC BANK	PROPOSED INTERIOR LAYOUT NANDED BRANCH	GROUND FLOOR LAYOUT	SATYAJIT RANE & ASSOCIATES PUNE 411016 TEL. 9890084268	01

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