

**INDIAN INSTITUTE OF TROPICAL METEOROLOGY
PASHAN, PUNE-411 008**

Tender No. IITM/CE/ FDL lab/works/15-16/10

TENDER NOTICE

Director, Indian Institute of Tropical Meteorology, Dr. Homi Bhabha Road, Pashan, Pune-411 008 (India) invites sealed tenders (Part-I – Technical Bid, Part-II – Commercial Bid) in separate sealed covers from reputed and government registered with CPWD, PWD, MES, Railways and other government organizations Contractors for site development work for installation of de-ionization plant and foundation of water tunnel in fluid dynamics lab at IITM, Pashan, Pune.

Cost of Tender Fee **Rs. 500/- (Only DD required)**

Tender documents with BOQ can be obtained from Office of Civil Engineer IITM, Pune.

Date of issue of tender documents: **30.09.2015**

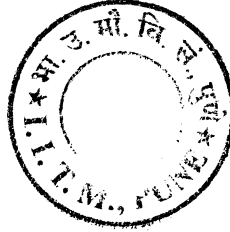
Pre-Bid Meeting **08.10.2015 at 11:00 hrs**

Last date of receipt of Tender at IITM, Pune: **21.10.2015 at 12:30 hrs**

Opening of Tenders (Technical Bids only): **21.10.2015 at 15:00 hrs**

The Institute reserves the right to reject any or all tenders without assigning any reasons thereof. For further details please visit our Website: **www.tropmet.res.in**

**Civil Engineer
anupam@tropmet.res.in**

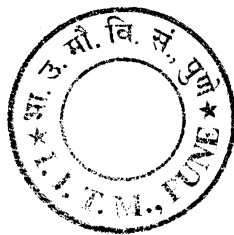


**TENDER FOR SITE DEVELOPMENT WORK FOR INSTALLATION OF DE-IONISATON PLANT AND
FOUNDATION OF WATER TUNNEL IN FLUID DYNAMICS LAB AT INDIAN
INSTITUTE OF TROPICAL METEOROLOGY, PASHAN, PUNE-411008**

Volume 1

(TECHNICAL BID)

**INDIAN INSTITUTE OF TROPICAL METEOROLOGY,
DR.HOMI BHABA ROAD, PASHAN, PUNE-411008**



INDIAN INSTITUTE OF TROPICAL METEOROLOGY PUNE 411 008
TERMS & CONDITIONS

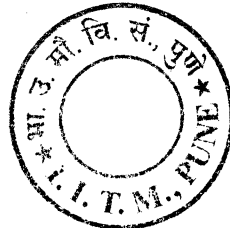
ENQUIRY NO: IITM/CE/ FDL lab/works/15-16/10

Tender No. IITM/CE/ FDL lab/works/15-16/10

Sealed item rate tenders are invited from the Contractors registered in the approved list of PWD, MES, CPWD, Railways and P&T in appropriate class for carrying out the following work at Indian Institute of Tropical Meteorology, Pune-8

Sr.No	Name of Work	Estimated cost	EMD	Completion Period
1.	Site development outdoor civil work for installation of de-ionisation plant and miscellaneous work to make fluid dynamics lab operational, at IITM, Pune.	Rs. 9,11,000/-	Rs. 19,000/-	45 days

- 1) On production of definite proof of valid contractor license / enlistment certificate with the CPWD, State PWD & MES, Railway, issued by the respective enlistment authority of the concerned department for the amount not less than estimated value of the work.
- 2) The BIDDER should have three similar completed works costing not less than the amount equal to 40% of the estimated cost.
Or
Two similar completed works costing not less than the amount equal to 50% of the estimated cost.
Or
One similar completed work costing not less than the amount equal to 80% of the estimated cost.
- 3) Should not have incurred any loss in more than two year during the last five year ending 31st March 2015.
- 4) If required Technical evaluation committee of IITM will visit to Bidder's completed site & submit the report to IITM office, Pune. Based on IITM committee report bidders are subject to be qualified/disqualified.



5) The Tenderers are requested to give detailed sealed tender in their own forms in two Bids i.e.

Part - I Technical Bid

- 1) The contractor is required to show proof of his latest valid **registration certificate (original)** with above bodies for the prescribed amount.
- 2) The contractor is required to show proof of his latest **Income Tax clearance certificate.**
- 3) The contractor should produce a list of works in hand and completed during the last 2 years.

Part - II Commercial Bid

This envelop will contain only commercial bid.

Both the sealed bids should be sent in another sealed envelope addressed to the Director, Indian Institute of Tropical Meteorology, Dr. Homi Bhabha Road, IITM Post, Pashan, Pune - 411 008, INDIA so as to reach on or before **21/10/2015 up to 12.30hrs.**

6) A sum of Rs. 500/- (Non - Refundable) for the cost of tender documents DD drawn in favour of Director, IITM if downloaded from website.

7) You have to submit two separate bids in two separate envelopes and you may keep both the bid envelopes in an envelope for sending to us.

8) One envelope will contain only the **TECHNICAL BID** of the indented equipment.

9) Another envelope will contain only the financial bid.

10) The main envelope, which will contain both the bids, should be super scribed with our tender enquiry No. **IITM/CE/ FDL lab/works/15-16/10** due on **21/10/2015.**

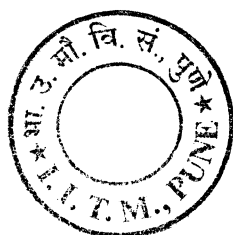
11) The technical bids will be opened on **21/10/2015** at **15 00 hrs** in the presence of tenderers who wish to be present & the financial bids of only those bidders will be opened whose technical bid is found suitable by institute.

12) The Date and Time of opening for Part-II (Commercial Bid) will be intimated only to technically qualified vendors based on the technical bid evaluation report

13) This tender is not transferable.

14) Cost of the items should be mentioned clearly in the Commercial Offer (Part-II) only.

15) **Tenders received through Fax / E-mail / Telegraphic / Telex will not be considered.**



16) Tenders addressed to the Director, Indian Institute of Tropical Meteorology, Pune 411008 are to be submitted under two bids system. Super scribed with Tender No. **IITM/CE/ FDL lab/works/15-16/10** for site development work for installation of de-ionisation plant with foundation of water tunnel for fluid dynamics lab at IITM.

17) The tenders must be clearly written or typed without any cancellations / corrections or overwriting.

a) Tenders, which are submitted without following the Two-Bid Offer System, will summarily be rejected.

b) Unsigned Tenders will also be rejected.

c) Part and incomplete tenders are liable to be rejected.

18) The tenders will be received in the Institute till **21/10/2015** up to **12.30 hrs** and shall be opened on 21/10/2015 at **1500 hrs** (Technical Bids) in presence of the tenderers or their authorized agents who wish to be present.

Date of issue of tender document	:	30/09/2015
Pre-bid meeting	:	08/10/2015
Last date of receipt of tender in IITM	:	21/10/2015 up to 12 30 hrs
Opening of tender (Technical bid only)	:	21/10/2015 at 15 00 hrs

19) IITM will not be responsible:

a) For delayed / late quotations submitted / sent by Post / Courier etc.

b) For submission / delivery of quotations at wrong places other than the Office of Director, IITM, Pune,

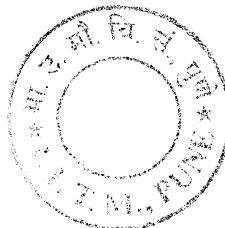
20) The tender / quotation / offer submitted by the firm should be valid for a minimum period of **One hundred twenty (120) days** from the date of opening the tender.

21) The Tenderer's conditions printed on the tender or otherwise sent along with the tender shall not be binding on IITM.

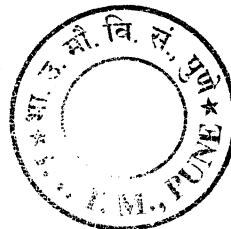
22) **Delivery Period:** As time is the essence of the contract, period of completion work (45 days including monsoon) mentioned in the tender should be strictly adhered to.

23) The Tenderer is required to furnish the Permanent Account Number (PAN) and Service Tax no. if any allotted by the Income Tax Department. If registered with the National Small Industries Corporation, the registration number, purpose of registration and the validity period of registration' etc. should also be provided in Technical Bid.

24) A copy of latest Income Tax Clearance Certificate from Income Tax Department shall be in Technical Bid.



- 25) **PAYMENT:** a) No advance can be paid.
b) 95% payment will be released on completion of work and handing over of the clear site to the Institute. Balance 5% will be released on completion of defect liability period of 12 months from the date of handing over of the clear site
c) Performance security 5% of order value in the form of Demand draft or bank guarantee drawn from any nationalized /scheduled bank in favour of Director IITM Pune which will be released on satisfactory completion and handing over the site.
d) No price escalation will be granted at any time during the contract period.
e) The rate for non tendered items will be arrived as per the following: Material cost at site + labour cost + Taxes +10% over head and profit) Non tendered items will be executed only with the prior approval of the Institute authorities.
f) Additional work/ any deviation beyond work order quantity require prior approval of IITM authorities before execution of such work .
- 26)The prices quoted should be firm and irrevocable and not subject to any change whatsoever, even due to increase in cost of raw material components and fluctuation in the foreign exchange rates and excise duty.
- 27) IITM will not provide any accommodation/transportation for the Engineers/Representatives.
- 28)**DEFECT LIABILITY PERIOD:** Defect liability period of the work will be 12 months from the date of actual completion of work and taking over by the Institute.
- 29) No sub-contracting will be allowed for installation or maintaining system/ equipment/ instrument during or after warranty period.
- 30) Discount if any offered should be mentioned clearly in the commercial bid only.
- 31) a) The Earnest Money Deposit interest free of **Rs.19,000=00 (Rs. Nineteen thousand only)** must be paid / sent along with your technical bid in the form of a Demand Draft, Banker's cheque or Bank Guarantee drawn on Nationalized/ scheduled bank in favour of **The Director, Indian Institute of Tropical Meteorology, Pune payable at Pune**, otherwise your technical & financial bids will not be considered at all.
b) The Earnest Money of the unsuccessful bidder will be released on issue of LOI to successful bidder .
c) Tenders not accompanied with Demand Draft / Bank Guarantee towards "Earnest Money Deposit" will summarily be rejected.
- 32) **Penalty Clause :** If the Contractor fails to carry out the work as per specifications mentioned in the BOQ within the due date, the contractor is liable to pay liquidated damages of one percent, per week. Delay subject to a maximum of 10% of balance work beyond the due date and such money will be deducted from any money due or which may become due to the supplier.



33) Safety - The contractor is responsible for following all the safety measures during the execution of the work .

34) Government/Labour Act- The contractor will follow all the government labour acts which are in force at present and introduced from time to time .

35) Corrupt or Fraudulent Practices.

A) IITM requires that the bidders/contractors under this tender observe the highest standards of ethics during the procurement and execution of such contracts. In pursuance of this policy, IITM:

i) Defines for the purposes of this provision, the terms set forth as follows:

a) "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of the public official in the procurement process or in contract execution; and

b) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or a execution of a contract to the detriment of IITM, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive IITM of the benefits of the free and open competition;

ii) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt of fraudulent practices in competing for the contract in question;

B) IITM will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt and fraudulent practices in competing for, or in executing, a contract.

36) Conditional Offers will not be considered.

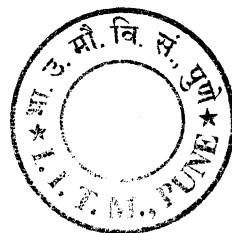
37) All disputes are subject to exclusive jurisdiction of Competent Court and Forum in Pune, India only.

38) The Director, Indian Institute of Tropical Meteorology, Pune 411 008, India reserves the right to accept any tender in full or in part or to reject the lowest or any or all tenders without assigning any reason.

39) The decision of The Director, Indian Institute of Tropical Meteorology, Pune about the interpretation of any terms and conditions of this tender will be final and binding on the contractor.

For Director

Email: anupam@tropmet.res.in



-AGREEMENT-

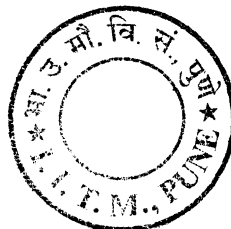
This agreement, made the day of ,2014 between Indian Institute of Tropical Meteorology, Homi Bhabha road, Pashan, Pune (hereinafter called _ the Employer) II of the one part and M/s. ----- II of the part

Whereas the Employer is desirous that the Contractor execute -----at Indian Institute of Tropical Meteorology, Pashan, Pune (hereinafter called _ the Works II) and the Employer has accepted the Bid by the Contractor for the execution

And completion of such works and the remedying of any defects therein, at a Contract Rs. -----

THIS AGREEMENT WIRNESSETH as follows:

1. In this Agreement, words and expression shall have the same meaning as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the works and remedy any defects therein conformity in all aspects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying the defects wherein the contract Price or such other sum as may become payable under the provisions of the Contractor at the times and in the manner prescribed by the contract.
4. The contractor shall not be responsible for any delays due to changes in drawings, specifications, scope of work or any other reasons attributable to the client, his representatives and other contractors. The contractor shall also not be responsible for any delays occurring due to force majeure situations during the execution of the work.



5. **PENALTY CLAUSE:** If the Contractor fails to carry out the work as per specifications mentioned in the BOQ within the due date, the contractor is liable to pay liquidated damages of one percent, per every week delay subject to a maximum of 10% of work order value and such money will be deducted from any money due or which may become due to the supplier. Completion period will be calculated from the date of handing the site to contractor for execution of work.
6. Other terms and conditions will be applicable as per Tender document and issued LOI dated on-----
7. The Director, Indian Institute of Tropical Meteorology, Pune will be the final authority to decide the appropriate action and it will be binding on the Vendor. Decision of Director, IITM in regard of interpretation of the terms and conditions shall be final and binding on the vendor.

In witness whereof the parties thereto have caused this Agreement to be executed the day and Year first before written.

Signed and delivered for and on behalf of
behalf of
M/s. -----

Signed and delivered for and on
behalf of
Indian Institute of tropical Meteorology, Pashan

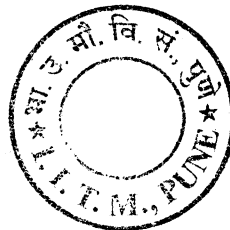
1) Signature
Name:

Address:

1) Signature
Name:

2) Signature
Name:

2) Signature
Name:



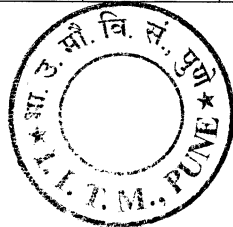
BLANK BOQ: ONLY FOR REFERENCE

Note:

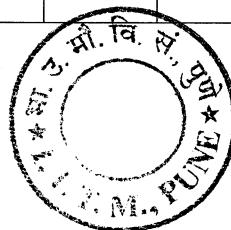
(1) Bidders shall comply the BOQ and signed & stamped on each page. This will be part of technical bid.

(2) Bidders shall submit all tender drawings duly signed and stamped along with Technical Bid.

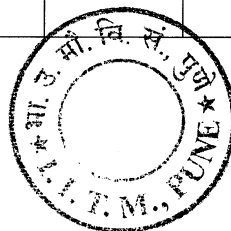
Sr. No	Description	Qty.	Unit	Basic rate Rs.	taxes	Total rate	Amount
1	Dismantling tile work in floors, steps, kota etc. laid in cement mortar including stacking serviceable material and disposal of unserviceable material outside office premises lead. For thickness of tiles 10 mm to 25 mm	64	Sq.m.				
2	Excavation for foundation in earth , murum, road, soil of all types including spreading and leveling , preparing the bed for foundation and necessary back filling , ramming, watering including shoring and strutting etc.(Lift upto 1.5m) including disposing off excavated soil out of office premises.	73	cum				
3	Filling with 50 to 100mm boulder and hard murum in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering (PD 95%) etc. complete all as directed.	37	cum				
4	Providing and laying in position cement concrete of specified grade including the cost of centering and shuttering - All work up to plinth level(M10)1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate 20 mm nominal size) in foundation, floor/plinth sub base and coping etc.	8	cum				
5	Providing and laying in position cement concrete for raft of specified grade including the cost of centering and shuttering - All work up to plinth level (M25) 1:1:2 (1 Cement : 1 coarse sand : 2 graded stone aggregate 20 mm nominal size)	20	cum				
6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete up to plinth level. Thermo-Mechanically Treated bars	300	kg				



7	<p>Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge,(for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)</p> <p>Location : Lab entrance railing work</p>	55	kg				
8	<p>Providing and fixing precoated semi corrugated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required with necessary champer at joint of sheet and wall for proper way to rain water wherever required.</p>	55	Sq.m.				
9	<p>Steel work in built up tubular (round, square or rectangular hollow tubes etc.) angle, trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer and synthetic enamel paint including welding and bolted with special shaped washers etc. complete.</p> <p>Hot finished welded type tubes</p>	2000	kg				



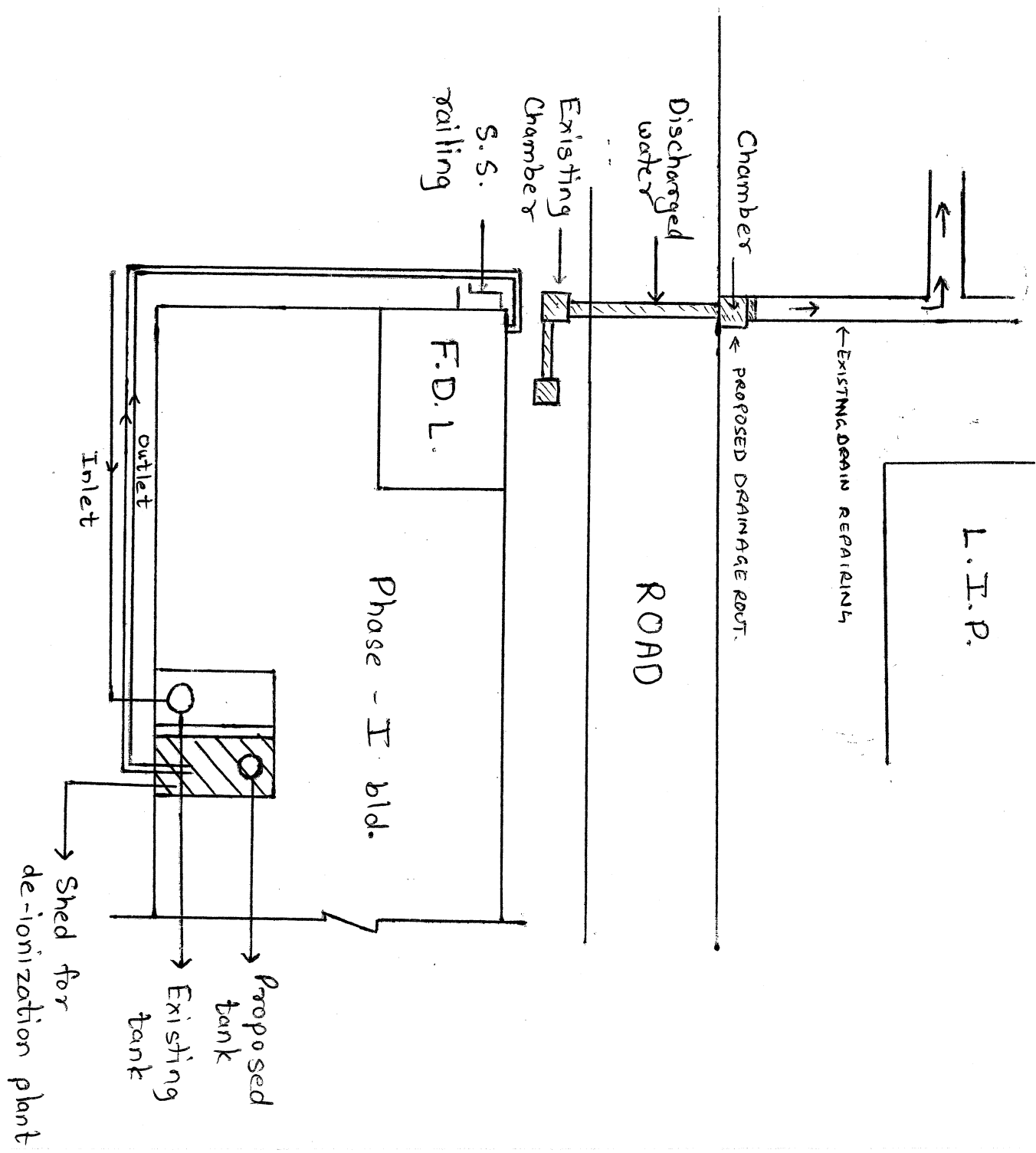
10	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings such as hinges, tower bolt , locking system etc. complete, including applying a priming coat of approved steel primer and synthetic enamel paint etc. Using M.S. angels 40x40x6 mm for diagonal braces	8	Sq.m.				
11	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes(half round) including bed concrete as per standard design : 200 mm diameter S.W. pipe	20	mtr				
12	Kota stone hand cut slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and mirror polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) : 25 mm thick	40	Sq.m.				
13	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings(tee, elbow, reducers, connectors etc.) including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. 25 mm nominal outer dia Pipes	280	mtr				
14	Making connection from existing water line including necessary reducer, patti valve, brick chamber with M.S. cover etc. (Material of plumbing shall be of brass)	1	job				
15	Providing & fixing various types of valve & other brass fittings etc complete.						
	A)brass stop cock of approved quality 25mm	15	No.				
	B) Gun metal non-return valve of approved quality (screwed end) : 25 mm nominal bore Horizontal	15	No.				
	C)ball valve (brass) of approved quality, High or low pressure, with plastic floats complete 25mm nominal outer dia.	3	No.				



25	Shifting/protection of fixed and movable furniture, storage, board, false ceiling etc and deep cleaning of both rooms after completion of work. [Note : If there is some damage while working then contractor shall pay for particular damage with his own cost]	1	job				
26	Preparation of old wall surfaces existing luster paint by scrapping, sand papering including necessary repairs to scratches and cracks by using birla white cement Putty and primer etc. and preparing the surface even and smooth complete for providing luster paint of same shade.	21	Sq.m				
27	Providing & applying internal cement plaster 15 mm thick in a single coat in Cement Mortar (1:4) sanala finish over chicken wire mesh to concrete & brick surface in all position including all types of finishing such as cornice, molding, pattas, scaffolding & curing etc. complete as directed.	2	Sq.m.				
28	Distemping with oil bound washable distemper of approved brand and manufacture to give an even shade : New work (two or more coats) over and including water tinnable priming coat with cement primer	2	Sq.m.				
						Total	

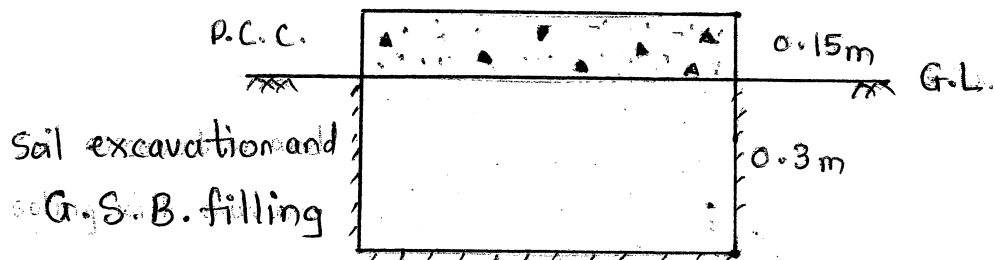


Annexure - I

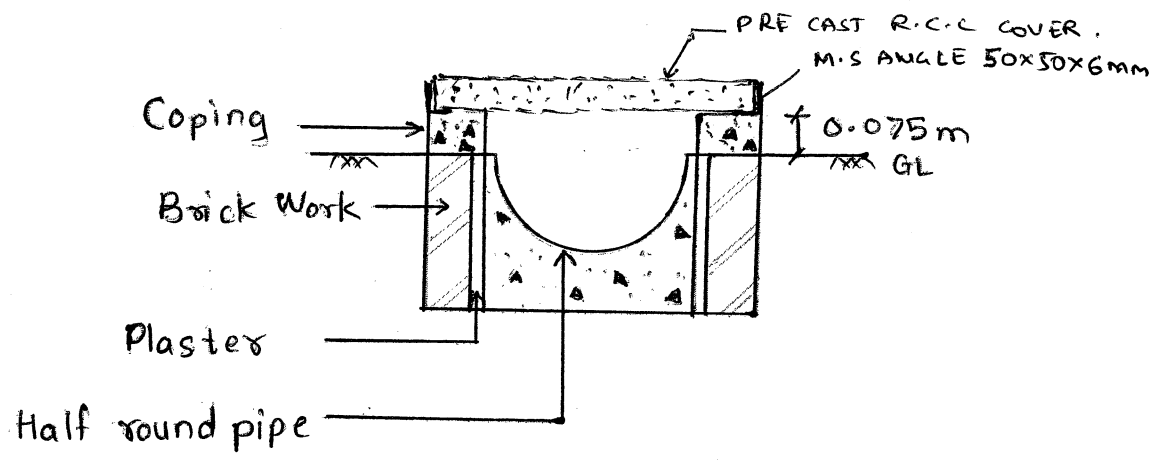


Plan Routing of discharged water

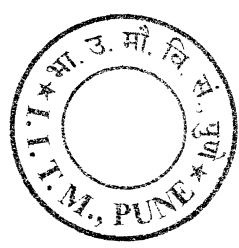
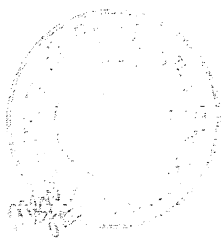


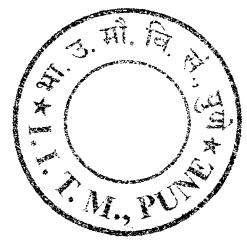
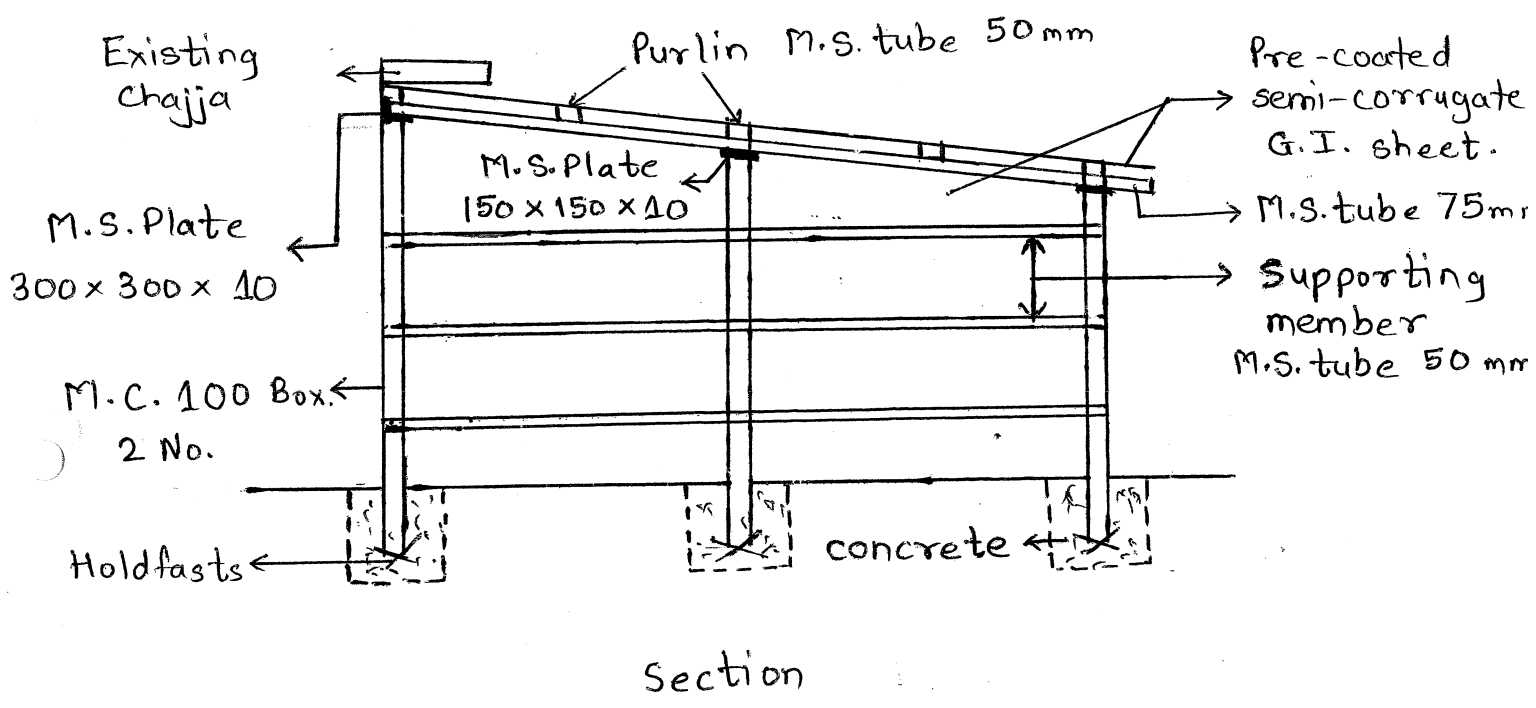
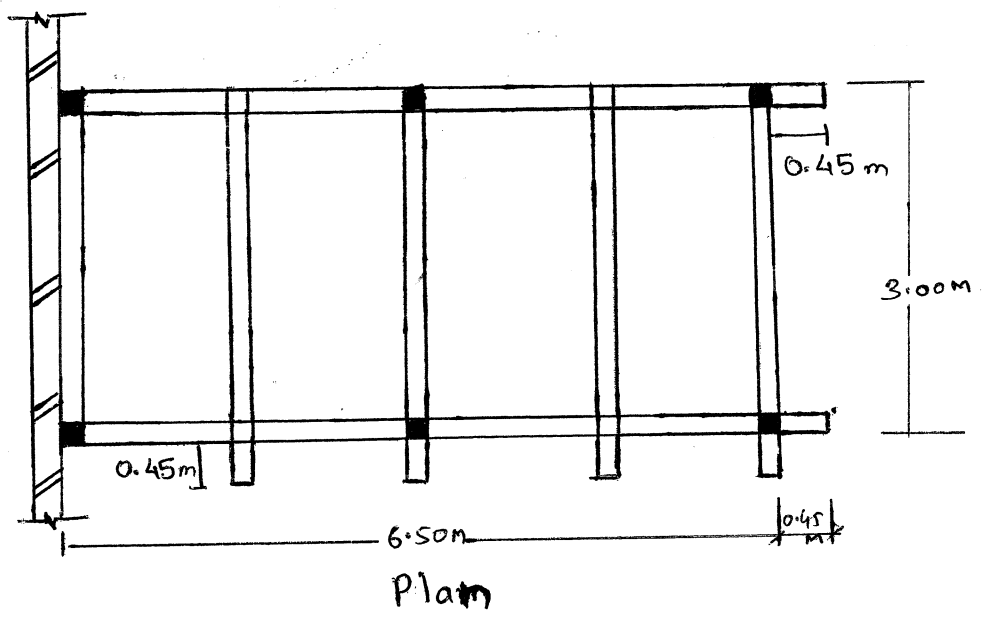


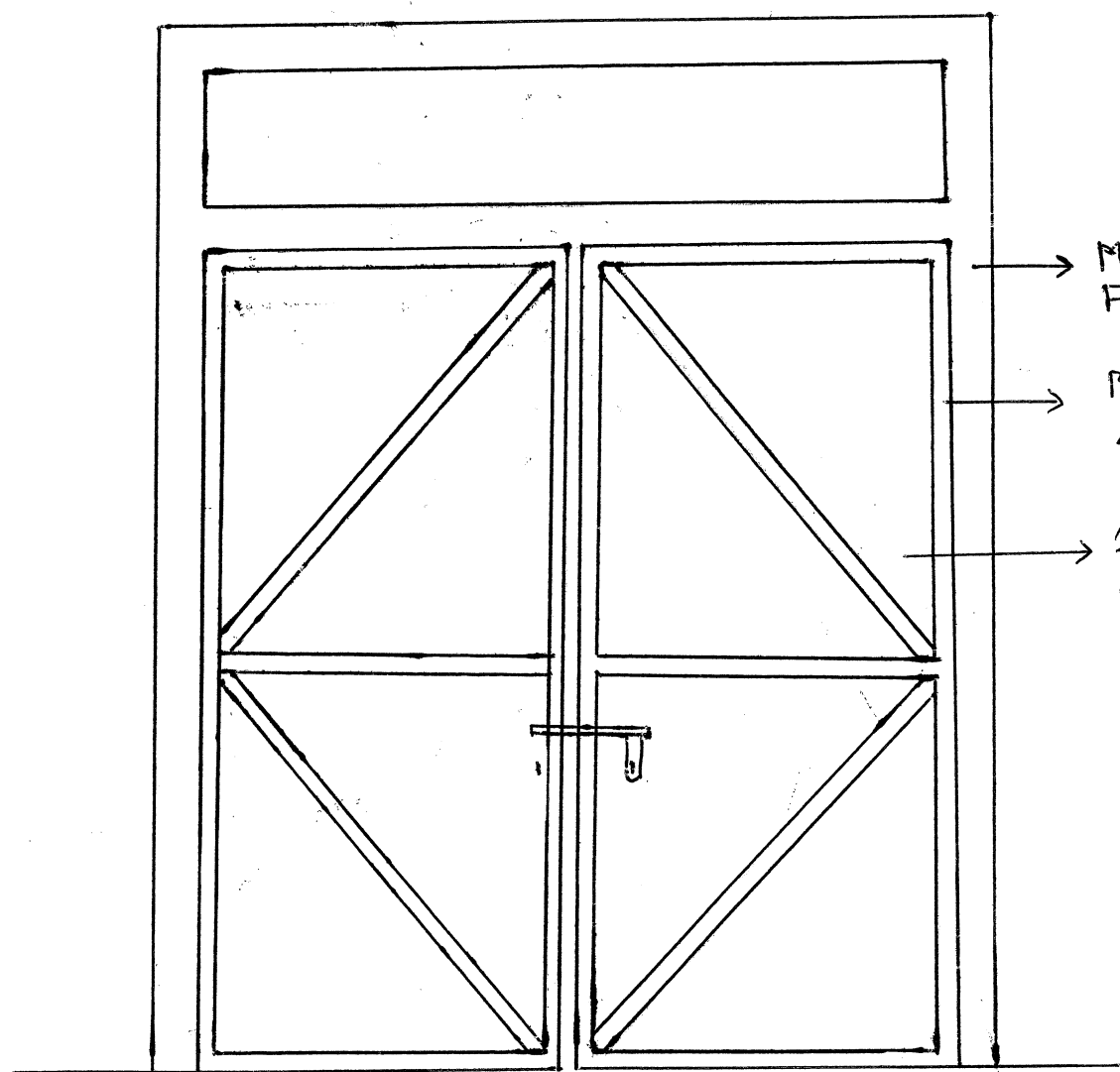
c/s of excavation and P.C.C.



c/s of half round pipe





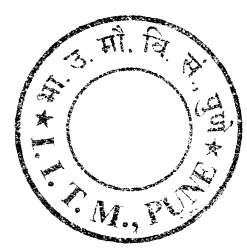


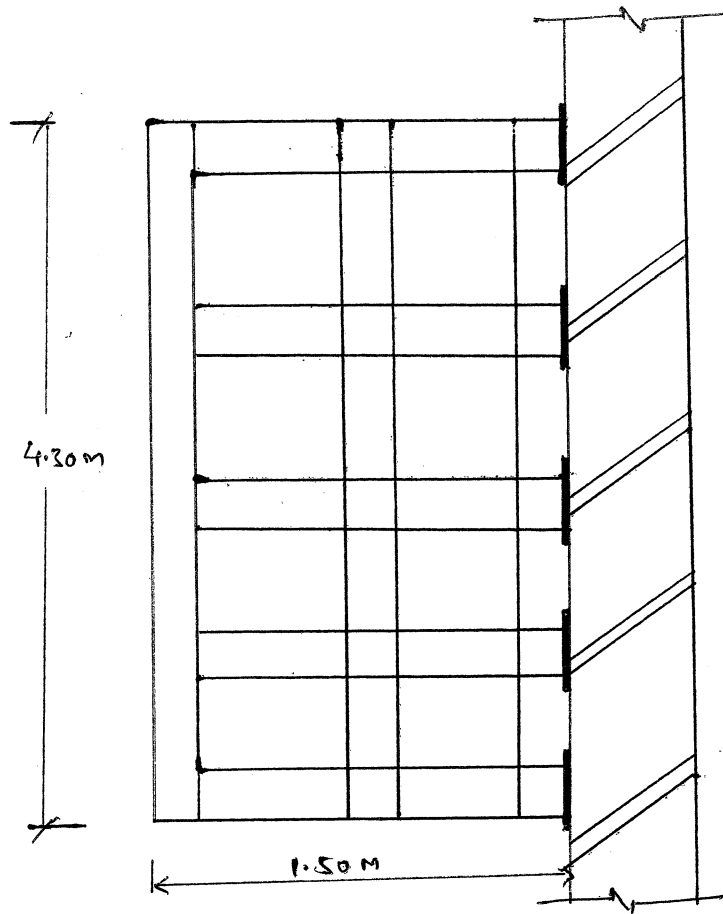
M.C. 100 bo
Frame

M.S. Angle
40x40x6

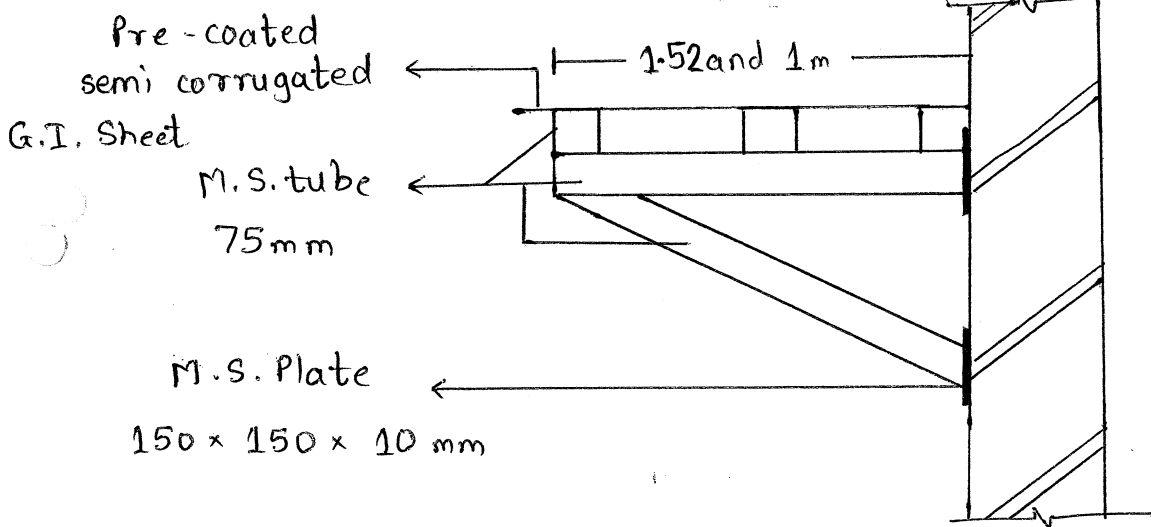
1mm thick
M.S. Sheet

Door for de-ionization Plant



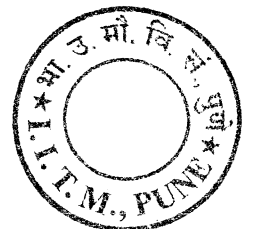


Plan



c/s

Shed over door and window at main entrance

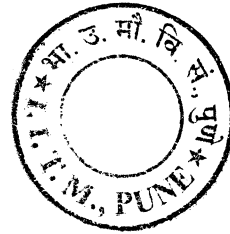


Tender Enquiry : IITM/CE/ FDL lab/works/15-16/10

Volume -II

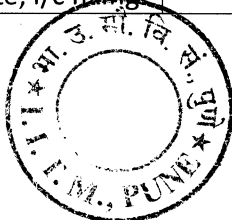
(COMMERCIAL BID)

INDIAN INSTITUTE OF TROPICAL METEOROLOGY,
DR.HOMI BHABA ROAD, PASHAN, PUNE-411008

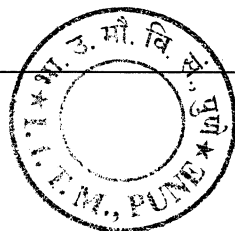


**BOQ for SITE DEVELOPMENT WORK FOR INSTALLATION OF DE-IONISATON PLANT AND
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PASHAN, PUNE-411008**

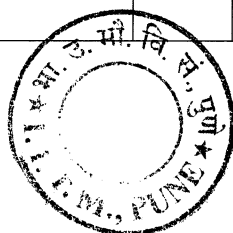
Sr. No	Description	Qty.	Unit	Basic rate Rs.	taxes	Total rate	Amount
1	Dismantling tile work in floors, steps, kota etc. laid in cement mortar including stacking serviceable material and disposal of unserviceable material outside office premises lead. For thickness of tiles 10 mm to 25 mm	64	Sq.m.				
2	Excavation for foundation in earth , murum, road, soil of all types including spreading and leveling , preparing the bed for foundation and necessary back filling , ramming, watering including shoring and strutting etc.(Lift upto 1.5m) including disposing off excavated soil out of office premises.	73	cum				
3	Filling with 50 to 100mm boulder and hard murum in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering (PD 95%) etc. complete all as directed.	37	cum				
4	Providing and laying in position cement concrete of specified grade including the cost of centering and shuttering - All work up to plinth level(M10)1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate 20 mm nominal size) in foundation, floor/plinth sub base and coping etc.	8	cum				
5	Providing and laying in position cement concrete for raft of specified grade including the cost of centering and shuttering - All work up to plinth level (M25) 1:1:2 (1 Cement : 1 coarse sand : 2 graded stone aggregate 20 mm nominal size)	20	cum				
6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete up to plinth level. Thermo-Mechanically Treated bars	300	kg				
7	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing	55	kg				



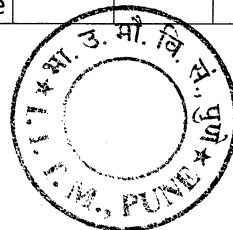
	<p>the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge,(for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)</p> <p>Location : Lab entrance railing work</p>					
8	<p>Providing and fixing precoated semi corrugated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required with necessary champer at joint of sheet and wall for proper way to rain water wherever required.</p>	55	Sq.m.			
9	<p>Steel work in built up tubular (round, square or rectangular hollow tubes etc.) angle, trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer and synthetic enamel paint including welding and bolted with special shaped washers etc. complete.</p> <p>Hot finished welded type tubes</p>	2000	kg			
10	<p>Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings such as hinges, tower bolt , locking system etc. complete, including applying a priming coat of approved steel primer and synthetic enamel paint etc.</p> <p>Using M.S. angels 40x40x6 mm for diagonal braces</p>	8	Sq.m.			



11	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes(half round) including bed concrete as per standard design : 200 mm diameter S.W. pipe	20	mtr				
12	Kota stone hand cut slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and mirror polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) : 25 mm thick	40	Sq.m.				
13	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings(tee, elbow, reducers, connectors etc.) including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. 25 mm nominal outer dia Pipes	280	mtr				
14	Making connection from existing water line including necessary reducer, patti valve, brick chamber with M.S. cover etc. (Material of plumbing shall be of brass)	1	job				
15	Providing & fixing various types of valve & other brass fittings etc complete.						
	A)brass stop cock of approved quality 25mm	15	No.				
	B) Gun metal non-return valve of approved quality (screwed end) : 25 mm nominal bore Horizontal	15	No.				
	C)ball valve (brass) of approved quality, High or low pressure, with plastic floats complete 25mm nominal outer dia.	3	No.				
16	Providing and fixing 'Sintex' water storage tank of approved make and of required capacity including all necessary foundation bed in concrete 1:2:4 of height 300mm connections , accessories, transportation, hoisting erection etc. complete	5000	Lit.				
17	Removing of existing PVC water storage tank and hoisting and fixing another PVC Sintex tank of 5000 lit. capacity including inlet, outlet connections labour only complete in all respect all as directed by engineer in charge.	1	job				



18	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in Cement mortar 1:3 (1 cement : 3 coarse sand)	17	Sq.m.				
19	Brick work with common burnt clay modular bricks of class designation 7.5 in foundation and plinth in Cement mortar 1:4 (1 cement : 4 coarse sand)	1	cum				
20	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand)	50	Sq.m.				
21	Providing and laying cement concrete 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) in coping and for fixing MS Angle etc. including necessary shuttering all as directed	1	cum				
22	Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 5	30	each				
23	1 to 1.5 HP monoblock pump whichever is approved (Make-Crompton/Kirloskar/Jyoti) as approved by engineer-in-charge.	1	each				
24	Supply and fixing Slow roll on mosquito net sliding up/down curtain fitted with aluminium white powder coated white framing support system as per approved sample.	150	Sq.ft.				
25	Shifting/protection of fixed and movable furniture, storage, board, false ceiling etc and deep cleaning of both rooms after completion of work. [Note : If there is some damage while working then contractor shall pay for particular damage with his own cost]	1	job				
26	Preparation of old wall surfaces existing luster paint by scrapping, sand papering including necessary repairs to scratches and cracks by using birla white cement Putty and primer etc. and preparing the surface even and smooth complete for providing luster paint of same shade.	21	Sq.m				
27	Providing & applying internal cement plaster 15 mm thick in a single coat in Cement Mortar (1:4) sanala finish over chicken wire mesh to concrete	2	Sq.m.				



	& brick surface in all position including all types of finishing such as cornice, molding, pattas, scaffolding & curing etc. complete as directed.						
28	Distemping with oil bound washable distemper of approved brand and manufacture to give an even shade : New work (two or more coats) over and including water tinnable priming coat with cement primer	2	Sq.m.				
						Total	

