



INSTITUTE OF PHYSICS

BHUBANESWAR-751 005

(An Autonomous research institute of Dept. of Atomic Energy, Govt.of India)

Tender No. NIT/IOP/ 03 /2016-17

PART-I TECHNICAL BID



INSTITUTE OF PHYSICS
BHUBANESWAR-751 005

(An Autonomous research institute of Dept. of Atomic Energy, Govt.of India)

Tender No. NIT/IOP/03/2016-17

RENOVATION OF TOILETS IN OFFICE MAIN BUILDING AND IBL IN
IOP CAMPUS.



INSTITUTE OF PHYSICS
BHUBANESWAR-751005, INDIA

(An Autonomous research institute of Dept. of Atomic Energy, Govt. of India)

No _____/IP,

Date _____

NOTICE INVITING TENDERS

Institute of Physics, Bhubaneswar is an Autonomous Research Institute of the Department of Atomic Energy, Government of India

Sealed tenders in TWO Parts are invited by the Director, Institute of Physics, Bhubaneswar- 751 005 from reputed contractors for the following work. Contractor who fulfill the following requirement shall be eligible to apply.

- (a) Should have satisfactorily completed minimum one /two/three similar works each of single value amounting to 80% / 60% / 40% of the estimated cost respectively or above during last seven years ending 31st March,2016 and
- (b) Should have carried out one work of any nature either above or a separate one costing not less than Rs. 4.80 lakhs with some Central/ State Government Department/ central Autonomous Body/ central Public Sector Undertaking.Govt. / Semi-govt. organization,need apply with proof (Completion Certificate along with detailed work order) of fulfilling the above conditions need apply only :
- (c) Similar work means repair/ renovation of any building works or, civil maintenance work.
- (d) Should have had average annual financial turnover Rs. 15 lakhs on during last three years ending 31st March 2016.

Tenderer have to submit the proof of above eligibility criteria i.e. (a) completion certificate along with detailed work order,(b) list of similar work carried out during last 7 year showing duration of work, value of work done, date of work order etc.. (c) Proof of work carried out in Govt. Department as above, (d) copy of Annual turn over during last three years.

Name of the Work	Multiple Repair/Renovation work in IOP Campus.
Estimated Cost	: Rs.7,02,000/-
Earnest Money Deposit Rs.	: Rs.14,200/-
Cost of Tender Document	: Rs.500/-
Duration of work	: 03 months from the date of commencement
Security Deposit	: 5 % of Tender Value
Performance Guarantee	: 5% of Tender Value
Last date for receipt of Tenders	: 1500 hours 29.04.2016
Time of Opening of Part-1 Tenders	: 1530 hours 29.04.2016

2. Tender documents are in two parts viz. Part-I (Technical Bid) and Part-II (Financial Bid). Part-I (Technical Bid) consists of Notice Inviting Tender with terms and conditions. Part-II (Financial Bid) contains of Schedule of quantities.

3. Tender Documents can be had from the Accounts Officer, IOP,Bhubaneswar-751 005 on written request in the official letterhead of the Tenderer duly recommended by the Officer on Special Duty, IOP or his authorized representative on any working day from 21.04.2016 to 29.04.2016 between 1100 hours & 1300 hours and 1400 hours & 1600 hours on payment of the cost of the tender document in person by cash. The cost paid towards Tender Document is not refundable.

4. Tenderers are required to submit in separate sealed and super scribed envelopes containing and indicating the following:

I	First Envelope	Earnest Money Deposit (EMD)*
II	Second Envelope	PART-I (Technical Bid) and the documents in support of eligibility conditions
III	Third Envelope	PART-II (Financial Bid)

All the three sealed envelopes shall then be placed in another envelope super scribing the Tender No. sealed and submitted to the tender inviting authority.

Note -1: EMD shall be submitted by way of Deposit at call Receipt or Bankers cheque or Demand Draft or Pay order from any nationalized bank in favour of the Director, Institute of Physics, Bhubaneswar-751005 or Fixed Deposit Receipt (FDR) of a Scheduled Bank.

Note -2: Cash, Cheques and Bank Guarantee for EMD shall not be accepted.

Note-3: tenders not accompanied by the Earnest Money Deposit shall be summarily rejected.

Note-4: EMD in respect of unsuccessful tenderers shall be returned within 90 days from the date of issue of the Letter of Intent to the Successful Tenderer.

5. Tenders shall be received upto 1500 hours on 29.04.2016 (or the next working day if the tender receiving date happens to be holiday) by the Director, IOP or his authorized representative at IOP, Bhubaneswar- 751 005.

6. Part-I of the tenders shall be opened same day on 29.04.2016 at 1530 hours in Director's Conference Hall/Library Conference hall, IOP, Bhubaneswar-751 005 in the presence of attending Tenderers.

7. The Envelope containing EMD shall be opened first. The Part-I of the Tender shall be opened only if the EMD is found to be in order.

8. Time and date of opening of the Part-II (Financial Bid) shall be intimated later, only to the Tenderers who are considered qualified after evaluation of PART-I and documents submitted by the tenderer in support of eligibility conditions..

9. The Part-II (Financial Bid) of the tender shall be valid for a minimum period of 180 days from the date of opening of PART-I

10. The Tenderer shall ensure that the FDR is valid for a period of nine months or more after last date of receipt of tenders and that it is to be pledged in favour of Director, Institute of Physics, Bhubaneswar-751 005.

11. In case of successful tenderer, the Tenderer shall deposit an amount equal to 5% (five percent) of the tendered/accepted value of the work as irrevocable performance guarantee in one of the following forms within a period of 15 days from the date of issue of letter of intent:

(a) Fixed Deposit Receipt (FDR) of scheduled Bank OR

(b) An irrevocable Bank Guarantee (BG) in the form prescribed by the Government from a Scheduled Bank.

The FDR/ BG shall be valid for the period of contract plus a further claim period of 6 months beyond the contract period.

The performance guarantee shall be refunded to the contractor soon after the completion of the work and recording of the completion certificate.

12. The work order shall be issued only after the said performance guarantee in any one of the prescribed form is received and accepted, failing which the Government shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the Earnest Money absolutely.

13. Director, Institute of Physics does not bind himself to accept the lowest or any other tender and reserves to himself the authority to reject any or all of the tenders or to allot parts of the works to different agencies without assigning any reasons therefore. All tenders, in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer, shall be summarily rejected

DIRECTOR

INSTITUTE OF PHYSICS
BHUBANESWAR
GENERAL CONDITIONS

Name of the Work: Renovation of toilets in office main Building and IBL in IOP Campus.

- 1) The estimated cost of the above work is Rs.7,02,000/- (Rupees Seven Lakh Two Thousand only)
- 2) Tenderers are advised to visit the work spot and understand the scope of the work clearly before submitting the tender. No claim of any kind shall be entertained on account of ignorance in this respect.
- 3) The contractors should have adequate and effective organization for communications with the Engineer-in-charge, Institute of Physics, Bhubaneswar.
- 4) Tender should be signed by persons duly authorised to do so and if required such authority (Power of attorney etc) shall be furnished to the Director.
- 5) Neither the security deposit nor the retention money shall bear any interest.
- 6) The tenders must be filled in ink and in a legible way. Over writing should be avoided. All corrections must be attested by the tenderer with his initials before submission of the tender.
- 7) Tenders proposing any alterations in the work or specifications or in the form of tender or in any other conditions shall be summarily rejected.
- 8) This is an item rate tender. Payment will be made to the Contractor as per actual measurement.
- 9) The rate should be filled in figure and in words. The amount and the totals should also be drawn.
- 10) If the rate in figure differs from the rate in words then the rate corresponding to the calculated amount shall be taken as correct. If the calculated amount does not tally with any of the two rates then the lower of the two rates shall be accepted and the amount shall be corrected.

- 11) Sales Tax, Octroi or any other tax on materials in respect of this contract shall be payable by the contractor.
- 12) **In addition to performance guarantee, 5 % of the work order value shall be deposited as security deposit in the form of Demand Draft drawn in favour of Director, Institute of Physics payable at Bhubaneswar on award of contract or shall be deducted @ 10% of the Bill amount from the RA bills for the said amount. EMD submitted along with the tender shall be adjusted in security deposit , This shall be refunded back after 6 months of successful completion of the work.**
- 13) Payment will be made as per actual measurement submitted by the contractor you after checking the measurement physically by the Engineer-in-charge and payment of the bills will be made within 10 days of the checking of the bills by the Engineer-in-charge.
- 14) The total time allowed for the completion of the work is strictly for 3 months from the date of commencement of the work.
- 15) Income tax, work contract tax other statutory taxes as may be applicable will be deducted at source on all the payments to be released to you for onward deposit with appropriate authority.
- 16) The rates quoted by you will remain firm throughout the currency of contract.
- 17) On the recommendation of the Engineer-in-charge based on the workmanship, quantity and quality of work done the bill will be passed for payment.
- 18) The acceptance of tender is at the discretion of the Director, Institute of Physics, Bhubaneswar. The Director does not bind himself to accept the lowest tender and reserve the authority to reject any or all the tenders without assigning any reason and reserve the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rates quoted. All tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable for rejection.

- 19) The Director does not undertake any responsibility regarding any instructions issued verbally in respect of this tender. All questions relating to the tender shall be referred to the Director in writing.
- 20) The amounts to be calculated against various items shall be in terms of whole rupees, less than fifty paise being ignored and fifty paise and above being rounded to the next rupees.

Institute of Physics
Bhubaneswar

- 1) General: The Contractor shall forthwith in a good substantial and workman like manner, to the satisfaction of the Institute, build and complete the work at Bhubaneswar.
- 2) Date of completion: The Contractor shall actively prosecute the execution of completion of the work to the satisfaction of the Director. The work specified above shall be completed in all respects within 3 months from the date of commencement of work.
- 3) Materials: The Contractor shall provide at his own cost all materials specified in the bills of quantities (with exception of those otherwise mentioned in the specifications) and all labour, tools and plants scaffolding and other implements of every description necessary for execution and completion of the work. All materials to be supplied by the contractor shall be the best of their respective kinds and subject to approval by the Director.
- 4) Sub-Contractor: The Contractor shall not assign or sublet the contract for the work or any part thereof.
- 5) Removal of equipment: The Contractor shall, at his own expenses, within one week from the completion date, remove all tools, plants, scaffoldings, implements and unused materials from the site and leave the same in a clean and proper state, to the satisfaction of the Director.
- 6) Inspection of works: The Contractor shall allow the Engineer-in-charge to inspect and supervise the work during its progress.
- 7) Defective work & rejections: The Contractor shall within 24 hours of notice so to do forth with pull down and rebuild any part of the work which has not been erected, build or completed to the satisfaction of the Director or which is in the opinion of the Director, defective or not in accordance with the specification or the plans.
- 8) Alteration or Deviations: The Institute may at any time during the progress of the work by order in writing make any alteration in the original specifications or plans by

way of addition, omission or other deviation whereupon the Contractors shall execute the work according to such alterations to the satisfaction of the Director.

- 9) Additions & Deductions: All additions and deductions to be made to or from amount of the contract price in respect of any such alteration in the specifications or plans shall be ascertained according to the rates specified in the bill of quantities (provided that if appropriate rates are therein specified, they shall be fixed by mutual agreement between the parties) and the difference of expenses occasioned by any such alteration shall be added to or deducted from the contract price. No payment or allowance whatsoever shall be made to the Contractor for any work done or materials used without a previous order, in writing from the Director.
- 10) Measurement of work: The work as it proceeds will be measured net exposed measurements. The Contractors or his representative will accompany the Engineer-in-charge in order that they agree on the measurements. The measurement book can also be examined at the office of the Director before payment is made.
- 11) Precautions against accident: The contractor shall, at all times, take due and proper precautions against accidents or injury to the work or any person or property, and shall indemnify the company for all motions suits or any damage or compensation payable in consequence of any accident or injury sustained by any workman or other person whether in the employment of the Contractor or not.
- 12) Failure to execute the work: If the Contractor fails to execute and complete the work otherwise fail to comply with any of the terms and conditions of this order, then the Institute shall be at liberty without avoiding this order forthwith, to require the Contractor to remove his workmen from the site and to take the work out of the hands of the Contractor and to employ any other person to execute and use all materials, tools, scaffolding, plants, implements and things on or about the work, and thereafter neither the Contractor nor his workman shall have any power to intervene with any person employed by the Institute.

All expenses and damages to property incurred by the Institute, consequent on the employment and certified by Director and shall be paid to the Institute by the

Contractor or deducted by the Institute from any money due to or to become due to the Contractor.

- 13) Serving Notices: Any notice to the Contractor under this order may be served personally or by registered post addressed to the Contractor last known place of address.
- 14) Discrepancies: Should there be any discrepancies between the plans, specifications and bills of quantities the same shall be immediately referred to the Director who shall decide what shall be followed.
- 15) The work will be taken up in hands within seven days of the award of the work and shall be completed in all respect within 3 months from the date of commencement of work.
- 16) Extension of time for completion may be allowed if the Director consider that the reasons for the delay in completion of the work is beyond the control of the Contractor.
- 17) Liquidity damages: 0.5% per week subject to maximum of 10%.
- 18) The tender should accompany with the following documents at the time of submission.
 - a) Proof of registration with Govt./Semi Govt. organizations like CPWD, State PWD/Railway etc. in appropriate class, PAN card, VAT Clearance certificates etc.
 - b) Experience having successfully carried out minimum one /two/three similar works in Govt. / Semi-govt. organization, each of single value amounting to 80% / 50% / 40% of the estimated cost respectively or above during last five years need apply with proof (Completion Certificate along with detailed work order) of fulfilling the above conditions .
 - c) EMD amounting to Rs.14,200/- (Rupees Fourteen thousand Two hundred only) in shape of demand draft or Bankers Cheque , drawn in favour of the Director, Institute of Physics, Bhubaneswar.
 - d) EMD of the successful tenderer will be retained and will be adjusted in Security Deposit.
In case of absence of any of the documents listed above the tender papers will not be entertained.

Signature of the tenderer with seal

Institute of Physics
Bhubaneswar

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|----|---|---|
| 1 | Defects Liability | = 6 months |
| 2. | Period of final measurement and valuation | = Within 10days of submission of the bill by the contractor. |
| 3. | Date of commencement | = Within 7 days from the date of issue of the work order. |
| 4. | Agreed liquidated damages | = 0.5% per week subject to maximum of 10%. |
| 5. | Minimum value of work for interim payment. | = The minimum value of work done should not be less than Rs.3,00,000/-. |
| 6. | Performance guarantee & Security deposit or Retention money | 5% of the value of work order should be deposited as performance guarantee upon award of the contract and in addition 5% of work order value shall be deposited as security deposit or will be deducted against the Running accounts bill. Security Deposit will be refunded after successful completion of period of 6 months. |
| 7. | Payment | = Within 10 days of of the checking of bill by E-I_C |
| 8. | Completion Period | = Within 3 months from the date of commencement of work. |

Signature of the tenderer with seal



INSTITUTE OF PHYSICS

BHUBANESWAR-751 005

(An Autonomous research institute of Dept. of Atomic Energy, Govt.of India)

Tender No. NIT/IOP/ 03 /2016-17

PART-II
FINANCIAL BID

SCHEDULE OF QUANTITIES

Name of the Work :-Renovation of Toilets in the Office Main Building and IBL.

Sl. No.	Description of items	Qty	Unit	Unit Rate(Rs.)		Amount(Rs.)
				in figure	in words	
1	Dismantling tile work in floors and walls laid in cement mortar including stacking material within 50 metres lead.					
1.1	For thickness of tiles 10 mm to 25 mm (code No.15.23.1 of DSR-2014)	230	SQM.			
2	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :					
	Of area 3 sq. metres and below(code No.15.12.1 of DSR:2014)	33.08	SQM.			
3	Dismantling G.I. pipes /PVC (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :					
3.1	15 mm to 40 mm nominal bore(Code No. 15.44.1 of DSR 2014)	52	Mtr.			
4	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.(Code No. 15.56 of DSR 2014)	4.2	SQM.			
5	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.(Code No. 15.60 of DSR 2014)	4.5	CUM.			
6	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground within 50 metres lead :					
6.1	With cement mortar 1:4 (1 cement : 4 fine sand)(Code No. 14.1 of DSR 2014)	4.2	SQM.			
7	Providing and fixing white vitreous china pedestal type water closet (European type) of Cera Sanitaryware,Jaquar or, other equivalent make with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :					
7.1	W.C. pan with ISI marked white cistern solid plastic seat and lid(Make-Jaquar/Cera/Parryware etc)	8	each.			

Sl. No.	Description of items	Qty	Unit	Unit Rate(Rs.)		Amount(Rs.)
				in figure	in words	
8	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :					
8.1	Single half stall urinal with 5 litre P.V.C. automatic flushing cistern(Make-Hindware/Cera Sanitary ware/Parryware etc)	7	each			
9	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls herever require:					
9.1	White Vitreous China Wash basin size 630x450 mm with a pair of CI wall fixing cantilever type brackets	6	each			
10	Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings(Code No.17.8 of DSR 2014)	14	each.			
11	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :					
11.1	Rectangular shape 600x450 mm(Code No. 17.32.2 of DSR 2014)	3	each.			
12	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.(Code No.17.33 of DSR 2014)	4	each.			
13	Providing and fixing toilet paper holder :					
13.1	C.P. brass(Code No.17.34.1 of DSR 2014)	14	each.			
14	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.(Make-Jaquar/Cera Sanitary ware/Parryware etc)	4	each.			

Sl. No.	Description of items	Qty	Unit	Unit Rate(Rs.)		Amount(Rs.)
				in figure	in words	
15	Providing and Fixing approved quality of 35 mm thick factory made Solid panel PVC Door shutter, made out of single piece extruded solid PVC profiles, 5 mm (± 0.2 mm) thick, having styles & rails (except lock rail) of size 95 mm x 35 mm x 5 mm, out of which 75 mm shall be flat and 20 mm shall be tapered (on both side), having one side thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power, including reinforcing with MS tube of size 40 mm X 20 mm x 1 mm, joints of styles & rails to be mitered cut & joint with the help of PVC solvent cement, self driven self tapping screws & M.S. rectangular pipes bracket of size 190 mm X 100 mm of cross section size 35 mm x 17 mm x 1 mm at each corner. Single piece extruded 5 mm thick solid PVC Lock rail of size 115 mm x 35 mm, out of which 75 mm to be flat and 20 mm to be tapered at both ends, having 15 mm solid core in middle of rail section integrally extruded, fixing the styles & rails with the help of solvent and self driven self tapping screws of 125 mm x 11 mm, including providing 5 mm Single piece solid PVC extruded sheet inserted in the door as panel, including hinges and fittings and fixtures required such as hinges, baby latch , tower bolt etc.all complete as per manufacturer's specification and direction of Engineer-in-charge.					
15.1	Decorative finish (wood grained finish)	33.08	SQM.			
16	Providing and fixing PVC Door Frame of size 50x47 mm with a wall thickness of 5 mm (± 0.2 mm), made out of single piece extruded PVC profile, with mitred cut joints and joint with 2 nos of PVC bracket of size 190 mm x 100 mm long arms of cross section size 35 x 15 mm & self driven self tapping screws, the vertical door profiles to be reinforced with 40x20 mm M.S. rectangular tube of 0.8 mm , including providing EPDM rubber gasket weather seal throughout the frame, including jointing 5 mm PVC frame strip with PVC solvent cement on the back of the profile. The door frame to be fixed to the wall using 8 x100 mm long anchor fasteners complete, all as per manufacturer's specification and direction of Engineer-in- charge.(Code No.9.141 of DSR 2014)	115.9	Mtr.			
17	Providing and laying Ceramic glazed floor tiles of (approved quality of M/s.H & R Johnson, Kajaria, Nitco or other equivalent) size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on quickset tile adhesive including pointing the joints with white cement and matching pigments etc., complete.	39.2	SQM			

Sl. No.	Description of items	Qty	Unit	Unit Rate(Rs.)		Amount(Rs.)
				in figure	in words	
18	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) of conforming to IS: 15477, in average 3mm thickness.(Code No. 11.43 of DSR 2014)	39.20	SQM			
19	Providing and fixing 1st quality ceramic glazed wall tiles of M/s. Kajaria/Johnson/ Nitco or other equivalent conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	172.5	SQM			
20	Repainting of old painted surface with two coats of acrylic emulsion paint of ICI dulux/Asian paints/Nerolac or other equivalent make & shade over one coats of approved cement primer(alkali resistant) consist of thoroughly scrapping oil bound distemper /acrylic emulsion /white wash surface ,filling of the cracks with approved Birla wall care white cement based putty to entire surface to fill up crevices middepression etc. thoroughly scrapping the surface , paint the surface by using roller including necessary covering materials and removal of splashing & dropping from floors , wall including scaffolding,ladder as required & disposing of debris outside colony etc. complete all as directed by Engineer -in-charge.	462	SQM			
21	Repainting of old painted wooden/steel surfaces with two coats of synthetic enamel paint using first quality synthetic enamel paint of approved make and shade over one coat of approved wood/steel primer including preparing surfaces, filling with putty scaffolding and cleaning etc. including removing old paint by scrapping, blowlamp etc. complete all as directed by the Engineer-in-charge.	32	SQM			
22	Replacement of existing window panels with 5.5 mm thick pinned glass(Modiguard/Saint gobain) pannels including cost of fixing pins, putty and rubber packing etc. where ever necessary including cost and conveyance of all materials and labour required for the work etc. complete in all respect as per the direction of the Engineer-in-charge .	3	SQM.			

Sl. No.	Description of items	Qty	Unit	Unit Rate(Rs.)		Amount(Rs.)
				in figure	in words	
23	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes SDR 7.4, U V stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.					
23.1	Concealed work, including cutting chases and making good the walls etc.,					
23.2	PN - 16 Pipe, 16 mm OD	15	Mtr.			
23.3	PN - 16 Pipe, 20 mm OD	21	Mtr.			
23.4	PN - 16 Pipe, 25 mm OD	21	Mtr.			
24	C.P.Brass Bib Tap with wall flange, CONTINENTAL' of Jaquar cat.No.CON-047.	3.00	each			
25	C.P.Brass long body Bib Tap 2 in 1 similar to FLORENTINE series of Jaquar cat.No.CON-5041.	2.00	each			
26	Angular Stop Cock with wall Flange similar to CONTINENTAL series of ' JAGUAR' cat.No.CON-053.	12.00	each			
27	C.P.Brass Pillar Cock 15 mm size similar to CONTINENTAL series of ' JAGUAR' cat.No.CON-011.	4.00	each			
28	Supplying & Fixing fabrication and Erection of steel work of M.S. angle45x45x6 mm and M.S. flat of 35x6 mm complete with cost of materials , tools, and plants etc. including cost of labour charges as per design and specification complete in all respects as per the direction of Engineer-in-charge.	228.00	KG			
29	Painting of structural steel with one coat of zinc chromate primer followed by 2 coats of synthetic enamel paint approved quality and shade complete with cost and conveyance of all materials and labour required for the etc. complete in all respect	6.35	Sqm.			
30	Providing and fixing 35 mm thick factory made laminated veneer lumber door shutter conforming to IS : 14616 and TADS 15:2001 (Part B), including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, all complete as per directions of Engineerin-charge and panelling with panels of :					
30.1	12 mm thick one side Pre-laminated particle board (decorative lamination on one side and other sides balancing lamination) grade - 1 medium density flat pressed, three layer particle board PT - I or graded wood particle board FPT-1 conforming to IS : 3087 bonded with BWP type synthetic resin adhesive as per IS: 848 and pre-laminated conforming to IS : 12823, Grade -1, Type II marked :	10.80	Sqm			
Total Amount=Rs.						
Amount(in words)=						