

INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY ESTATE OFFICE, POWAI, MUMBAI, MAHARASHTRA – 400 076

TEL. 022 2576 4995 E-mail: drestate@iitb.ac.in

IIT Bombay invites digitally signed Technical Bid & Financial Bid for following work from the contractors having similar experience in Central Government Departments / State Government Departments / Central or State Autonomous Bodies / State or Central Public Sector Undertakings & Large Private Organizations. The detail of work is given below:

Si	·	Estimated Cost (In Rs.) Incl. 18% GST	EMD (Rs.)	Time Limit	RFX No.
1.	Waterproofing work on te balconies and replacement of rusted cast iron pipes with PVC pipes in the new CC building. EO/A/WORKSHOP/WKS-223/24-25		Rs.2,11,000/-	06 months	6100002068

Intending bidders needs to be register themselves on IIT Bombay portal i.e. https://portal.iitb.ac.in/vrp/index.jsp to get User ID and Password. View the open tender on https://ep.iitb.ac.in/irj/portal Please visit https://portal.iitb.ac.in/vrp/vrp_srm_docs.jsp for configuration process and user manual. Queries regarding to vendor registration please contact on 022 – 2159 3001(ASC Help-desk) and queries regarding to online Bid submission please contact to +91 82915 56277/6377 or mail us at srm@iitb.ac.in

Date and time of submission of tender documents digitally are from 03.03.2025 to 12.03.2025 till 11:15 a.m. Date of opening of Technical Bid will be 12.03.2025 at 11.30 a.m. and Financial Bid 19.03.2025 (Tentative)

Interested contractors/agencies are requested to upload Technical bid and Financial bid on the SRM tendering portal of IIT Bombay.

- (A) All contractors/agencies should upload technical bid with the following documents on SRM tendering portal, failing to which their tender will be summarily rejected from the tendering process:
 - 1) i. Experience of having successfully completed works during the last 7 years ending last day of the month previous to the one in which applications are invited:
 - Three **completed works** costing not less than the amount equal to 40% of estimated cost put to tender, OR
 - Two **completed works**, costing not less than the amount equal to 60% of the estimated cost put to tender Or
 - One $completed\ work\ of\ aggregate\ cost\ not\ less\ than\ the\ amount\ equal\ to\ 80\%\ of\ the\ estimated\ cost.$ AND
 - ii. One completed work of any nature (either part of (i) or a separate one) costing not less than the amount equal to 40% of the estimated cost put to tender with some Central Government Departments / State Government Departments / State or Central Autonomous Bodies / State or Central Public Sector undertakings.
 - 2) Detail statement for work completed, work in hand including balance commitment of work should be enclosed for last three year commencing from 1st April and ended with 31st March and contractor should submit his details as per Annexure'A' format with support of xerox copies of work order and work completion certificates, otherwise the bid capacity will not be calculated and his technical bid will be summarily rejected, and no Financial Bid will be opened. (All contractors/agencies are hereby informed that they should upload Technical bid as per format of Annexure "A", changing in format is not allowed).
 - 3) Upload a scan copy of the information in respect of **manpower/mandays** for above said work must be given **in undertaking** with official signature and seal/stamp, otherwise tender will be **rejected**.
 - 4) Bank Solvency certificate 40% of estimated amount issued within one year from any Nationalized / Schedule Bank from the date of publishing of Tender.
 - 5) P. F. registration certificate.
 - 6) P. F. challans of last 12months.
 - (i) ESIC registration certificate and copies of ESIC challans of last 12months.
 - (ii) Contractors' all risks insurance (CAR policy) / Mediclaim policy.
 - 8) PAN card.
 - 9) GST registration certificate.
 - 10) Income Tax Return for last 03 years i.e. of 2021-22, 2022-23 and 2023-24.
 - 11) List of Equipment's, Machinery, Tools.
 - 12) List of Technical Staff with copies of their Degree/diploma certificate.

- 13) The contractors who were empanelled under Estate Office under (2018-23) list need not have to upload Demand Draft. The contractors other than empanel list that are applying for tender need to upload a scan copy of Demand Draft / Pay Order for Rs.2,11,000/-(EMD amount) drawn in favour of "The Registrar, IIT.Bombay" on online Tendering Portal.
- 14) Power of Attorney, if any.
- 15) Proof of Constitution: An affidavit in case of Sole Proprietorship, Partnership Deed in case of Partnership Firm, Article of Association in case of Private / Public Limited Companies.
- 16) **Litigation history** of the agency is required to be submitted along with the application. A tender would not be awarded if any inquiry proceeding / criminal case is found pending against the agency.

Note:

Those contractors who do not have documents mentioned above from <u>Sr. No. 1 to 16</u> need not apply as it is mandatory documents to qualify in technical bids.

Upload all your relevant documents in the serial order mentioned above. It is **advisable** not to make more than <u>03 folders of 5MB</u> while uploading documents.

The work will be executed with lowest bidder as per the terms and conditions of work order and tender documents signed by the lowest bidder. (All agencies are requested to upload a scan copy of Terms and Conditions with official signature and seal/stamp on SRM online tendering portal)

The validity of the bids will be valid for 6 months from the date of opening of tender.

If agency fails to submit the above mentioned documents by uploading to the online portal, their technical bid may be rejected.

Litigation history of the agency is required to be uploaded along with the application. Tender would not be awarded if any inquiry proceeding / criminal case is found pending against the agency.

No work will be subleted to third party. If found payment of final bill will not be processed and the contractor's name will removed from the enlistment without giving him further notice.

Contractor's/Agencies/Proprietor's are requested to give Power of Attorney to your representative to deal any matter with any Officers or Staff of IIT Bombay on behalf of you or your agency.

The rates of the estimate are based on CPWD DSR 2021 and rate analysis.

The contractor have to quote his own rates online against each item of work and need to select N5 tax code thereafter.

Scan and upload all the above mentioned documents in "C folder" of online SRM tendering protal.

IIT Bombay reserve its rights to reject any or all tenders without assigning any reason and without any reference.

No queries will be entertained within 24 hours prior to the opening of the tender. We kindly request all contractors to upload their quotations well in advance of the submission deadline to ensure a smooth and timely process.

Superintending Engineer (I/C)

TO BE UPLOADED ON SRM TENDERING PORTAL WITH FINANCIAL BID

ANNEXURE 'A' (FORMAT) TECHNICAL BID

File No.: EO/A/WORKSHOP/WKS-223/24-25

Name of Work: Waterproofing work	on the balconies	and replacement	of rusted	cast iron	pipes	with
PVC pipes in the New CC Building.						

Name of the Contractor ------

Sr. No.	Name of Client	Name of Works	2021-22 (In Lakhs)	2022-2023 (In Lakhs)	2023-2024 (In Lakhs)	2024-2 (In La	
						Completed	Balance
			-	***	-	-	-
		-					
			<u>-</u>	-	-	-	
		Total Amount (In Lakhs)		-	<u>-</u>	-	-

Note: Contractor must submit his details as per Annexure 'A' with declaration stating that he is possessing all the original copies of work orders and experience certificates, it will be produced as and when required to IIT Bombay. However, if it is found false at later stage, the contractor will be debarred or blacklisted. Whereas, if information is not submitted as per Annexure 'A' format his bid capacity will not been calculated and his tender will be summarily rejected.

Superintending Engineer (I/C)

Signature of Contractor Name & Address in full

WORKS UNDERTAKING

EO/A/WORKSHOP/WKS-223/24-25

To, Superintending Engineer (I/C) Indian Institute of Technology, Powai, Mumbai – 400 076.

Sub: Waterproofing work on the balconies and replacement of rusted cast iron pipes with PVC pipes in the New CC Building.

Dear Sir,

We are hereby quoting all the rates for the attached schedule of short tender of the above mentioned job.

We hereby accept & signed all the General Terms and Conditions and special Conditions of Contract.

The work will be completed within specified time limit of 6 Months as mentioned in the notice inviting for short tenders.

The following information is required to be provided.

I / We agree to keep the tender open for One Hundred and Eighty (180) days from the due date of its opening / One Hundred and Eighty days from the date of opening of financial bid in case tenders are invited on 2/3 envelope system and not to make any modification in its terms and conditions.

	Male	Female
No. of Unskilled casual labour to be required per day.		
No. of Skilled casual labour to be required per day.		
Total Mandays required for completion of work.		

Thanking you,

Yours faithfully,

Signature of the Contractor With official Seal / Stamp of the firm

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY POWAI, MUMBAI, MAHARASHTRA - 400 076

EO/A/WORKSHOP/WKS-223/24-25

ESTATE OFFICE

Name of work :- Waterproofing work on the balconies and replacement of rusted cast iron pipes with PVC pipes in the New CC Building.

Schedule Of Work

Schedule Of Work	w	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Description of work	Qty.	Unit
Removing door shutters and window shutters of any size and type with fittings (if available) and taking out the same outside IIT Campus etc. complete. (Recovery of wood scrap will be done @ Rs. 25 per kg, aluminium scrap will be done @ Rs. 120 per kg and structural steel will be done @ Rs. 20 per kg from Item of work agains actual weigth if material taken outside campus)	20.00	Nos
Dismantling plain cement concrete work including breaking concrete by chiselling, wedging etc., and stacking the debris upto a distance of 50 metres or spreading as directed.	9.00	m3
Dismantling Reinforced cement concrete work including breaking concrete by chiselling, wedging including scaffolding, covering area with jute kantan to avoid spreading of dust etc., stacking the debris upto a distance of 50 metres as directed.	6.00	m3
Removing the old cement concrete or any type of tiles from floor / wall carefully including levelling the surface, cleaning the site, stacking the debrises etc. complete.	763.00	m2
Dismantling PCC, IPS layer above brick bat coba from terrace floor/chajjas of building carefully without damaging the existing brickbat, levelling the surface, cleaning the site, lowering down the debrise and stacking the debrises upto 50mtr from building at designated spot etc. complete.	41.00	m3
Dismantling existing brickbat coba waterproofing from terrace without damaging the RCC slab carefully using electrially operated tools including lowering down the debrises and stacking the same upto 50 mtrs from the building all complete as directed.	153.00	m3
channels including all gusset plates, bolts, nuts, cutting rivets, welding	500.00	kg
the rate of 2% by weight of cement and covering 10 years' guarantee	153.00	m3
	Removing door shutters and window shutters of any size and type with fittings (if available) and taking out the same outside IIT Campus etc. complete. (Recovery of wood scrap will be done @ Rs. 25 per kg, aluminium scrap will be done @ Rs. 120 per kg and structural steel will be done @ Rs. 20 per kg from Item of work agains actual weigth if material taken outside campus) Dismantling plain cement concrete work including breaking concrete by chiselling, wedging etc., and stacking the debris upto a distance of 50 metres or spreading as directed. Dismantling Reinforced cement concrete work including breaking concrete by chiselling, wedging including scaffolding, covering area with jute kantan to avoid spreading of dust etc., stacking the debris upto a distance of 50 metres as directed. Removing the old cement concrete or any type of tiles from floor / wall carefully including levelling the surface, cleaning the site, stacking the debrises etc. complete. Dismantling PCC, IPS layer above brick bat coba from terrace floor/chajjas of building carefully without damaging the existing brickbat, levelling the surface, cleaning the site, lowering down the debrise and stacking the debrises upto 50mtr from building at designated spot etc. complete. Dismantling existing brickbat coba waterproofing from terrace without damaging the RCC slab carefully using electrially operated tools including lowering down the debrises and stacking the same upto 50 mtrs from the building all complete as directed. Dismantling steel work in built-up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including lowering down from any height and dismembering and stacking within 50 meters of lead etc. completed as directed. (Recovery of structural steel will be done @ Rs. 20 per kg from Item of work against actual weight if material is taken outside campus)	Removing door shutters and window shutters of any size and type with fittings (if available) and taking out the same outside ITT Campus etc. complete. (Recovery of wood scrap will be done @ Rs. 25 per kg, aluminium scrap will be done @ Rs. 120 per kg and structural steel will be done @ Rs. 20 per kg from Item of work agains actual weigth if material taken outside campus) Dismantling plain cement concrete work including breaking concrete by chiselling, wedging etc., and stacking the debris upto a distance of 50 metres or spreading as directed. Dismantling Reinforced cement concrete work including breaking concrete by chiselling, wedging including scaffolding, covering area with jute kantan to avoid spreading of dust etc., stacking the debris upto a distance of 50 metres as directed. Removing the old cement concrete or any type of tiles from floor / wall carefully including levelling the surface, cleaning the site, stacking the debrises etc. complete. Dismantling PCC, IPS layer above brick bat coba from terrace floor/chajjas of building carefully without damaging the existing brickbat, levelling the surface, cleaning the site, lowering down the debrise and stacking the debrises upto 50mtr from building at designated spot etc. complete. Dismantling existing brickbat coba waterproofing from terrace without damaging the RCC slab carefully using electrially operated tools including lowering down the debrises and stacking the same upto 50 mtrs from the building all complete as directed. Dismantling steel work in built-up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including lowering down from any height and dismembering and stacking within 50 meters of lead etc. completed as directed. Dismantling steel work in built-up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including lowering down from any height and dismembering and stacking within 50 meters of lead etc. completed

9	Providing and laying water proofing cement concrete flooring to terrace to average 50mm thick with 1:2:3 cement concrete laid to proper level and slope using silt free clear river sand including compaction, filling joints, adding recommended waterproofing admixtures @ 2% by weight of cement, marking lines to give appearances of tiles of 30cm x 30cm or other approved size laid diagonally / square, finishing with extra cement in any colour as directed, testing the roof by ponding with water for 14 days, providing waterproofing guarantee for 7 (seven) years in requisite non judicial stamp paper in favour of IITB including all lead and lift etc. complete.	763.00	m2
10	Providing and applying three coats of Dr. Fixit Roof seal coating including preparing surface by pressure washing the surface to remove all algae, mould, dirt, dust, chalking and waste products. All visible hairline cracks more than 0.50mm and not giving hollow sound on the IPS/screed or at the junctions of flat roof & vertical parapet wall, pipe joints, should be cut and widen V shape with mechanical cutter in the size (6mm W x 6mm D) and fill with Dr. Fixit PU Sealant covering the entire area uniformly with suitable gun. Allow sealant to cure a minimum 24 hours. Apply minimum 50mm - 100 mm width 45 GSM Glass Fibre Mesh / non-woven geo textile fleece with the coat of Dr. Fixit Roofseal Select along the length of crack. Apply one coat of Dr. Fixit Primeseal primer dilute with water in the ratio 2:1. Allow it to dry for 2 to 3 hours. Apply 1st coat of Dr. Fixit Roofseal Select at the rate of 2.0 sqmt / litre / coat. An open 45 Gsm glass fibre mesh of 2.5 mm x 2.5 mm must be sandwiched between the first	763.00	m2
	and second coat. While the 1st coat is still wet, place the fibre mesh on it. Allow the first coat to dry for 6-8 hours. Apply second coat of Dr. Fixit Roofseal Select with the same application coverage. Application direction of second coat should be perpendicular to that of the first coat. Allow second coat to dry for 6-8 hours. Apply third coat of Dr. Fixit Roofseal Select at an application direction that is perpendicular to that of the second coat with same application coverage rate. Check to see no void surface is left untreated / uncoated. Allow the system to air cure for 7 days minimum. A total thickness of 1 mm must be achieved when Dr. Fixit Roofseal Select is dry. Work Shall be got executed through certified applicator of the product manufacturing company only and work shall be guaranteed for 07 years by the contractor on requisite stamp paper including submitting written guarantee from said certified applicator.		
11	Carefully removing the existing C.I. / PVC / HDPE / C I drain pipes from floor / slab with out damaging the structure and taking out the same out of IIT Campus inlouding scaffolding etc. completed as directed.	455.00	Rmt
12	Removing teak wood or aluminium paneled / partly glazed or veneer / plywood partitions,/ ACP Cladding any type of ceiling carefully without damaging the frame or panels and taking out the same outside IIT Campus etc. complete. (Recovery of wood scrap will be done @ Rs. 25 per kg, aluminium scrap will be done @ Rs. 120 per kg and structural steel will be done @ Rs. 20 per kg from Item of work agains actual weigth if material taken outside campus)	347.00	m2

13	Providing and fixing P.V.C. rain water pipes 150mm outer dia. conforming to I.S. including proper rain water receiving recess with P.V.C. plug bend, necessary fittings such as offsets, shoes including fixing the pipe on wall using approved M.S brakets projecting 25mm to 40mm from face of wall & fixing with heavy duty PVC clips of approved quality & number, filling the joints using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding, and maintenance for 3 years for any leakages or dislocation of pipes. All the PVC fittings and additional two piece socket clips shall be got approved from engineer in charge complete.	455.00	Rmt
14	Providing and fixing P.V.C. rain water pipes 100mm outer dia. conforming to I.S. including proper rain water receiving recess with P.V.C. plug bend, necessary fittings such as offsets, shoes including fixing the pipe on wall using approved M.S brakets projecting 25mm to 40mm from face of wall & fixing with heavy duty PVC clips of approved quality & number, filling the joints using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding, and maintenance for 3 years for any leakages or dislocation of pipes. All the PVC fittings and additional two piece socket clips shall be got approved from engineer in charge complete.	43.00	Rmt
15	Providing second class burnt brick masonry with IS approved quality well burnt bricks having crushing strength of 35 kg. / square cm. and maximum water absorption of 20% in cement mortar 1:6 in superstructure including striking joints, racking out joints, watering and scaffolding complete.	9.00	m3
16	Providing internal cement plaster 12 mm thick in a single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces in all positions with the use of step ladder and curing complete.	153.00	m2
17	Providing & fixing in position Aluminum partition made using 2.5" x 1.5" Aluminum pipe section at 600mm c/c as frame with 12mm thick marine plywood finish with 1mm thick designer or solid colour laminate of century, green lam, royal touch, marino brand with approved pattern and colour on both side, making necessary groves wherever required as per standard practice, making necessary arrangement of raceway with removable type panels for electrical/lan/telephone work, making edges smooth with all required fittings and fixtures etc. complete as directed.	164.00	m2
18	Providing & fixing 1mm thick designer laminate of approved brand and pattern on partition/ door shutter/ door frame/ over window including, making necessary groves wherever required as per standard practice with all required fittings and fixtures etc. complete as directed.	164.00	m2
19	Providing and fixing without anodising or powder coating aluminium section for door frame, windows, partitions and any other require work etc. of required size including fixing with required fittings such as screws and other required fittings including fixing in proper alignment, rectifying all damaged, P/F wood inside frame for fixing hinges etc. completed as directed.	585.00	Kg
20	Providing and fixing 3mm thick plain aluminium composite sheet in partition, paneling and any other work with necessary fittings and fixtures etc. complete as per the directions of Engineer-in-charge.	282.00	m2

		*	
21	Providing and fixing 12mm thick marine plywoods for table top, panelling, shutters, partition and any other work with necessary fittings and fixtures etc. complete as per the directions of Engineer-in-charge.	20.00	m2
22	Providing and applying white cement based Birla make wall care putty of average thickness 1mm, over plaster/ concrete surface in proper line / level to prepare surface even and smooth for including preparing the wall surface for the application of wall care putty etc. complete as directed.	153.00	m2
23	Providing and applying one coat of seal cement primer IITB approved brand, cleaning the surface with the use of stepladder/ scaffolding including scrapping the surface, filling the holes, covering the floor, windows, instruments during painting etc. complete.	153.00	m2
24	Providing and applying roller finish Acrylic plastic emulsion paint of of IITB approved manufacturer and of desired colour and shade to old / new ceiling & wall surfaces in two coats with the use of stepladder/ scaffolding, preparing and levelling the surfaces with Acrylic palty, as per manufactures specification (excluding priming coat) complete.	153.00	m2
25	Providing and applying one priming coat of IITB approved brand over steel and other metal surface, including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter, sand papering etc.	20.00	m2
26	Providing and applying two coats of synthetic enamel paint of IITB approved brand and shade to wood and steel work. Scrapping, cleaning, covering the floor, windows, instruments during painting etc. complete.	20.00	m2
27	Providing and fixing 4mm thick exterior grade ACP sheet of approved colour and pattern over exisitng alumnium frame, fixing the panels using 3M tape, filling the joints using 789 grade silicon sealant with all required fittings and fixtures, screws, hardware using scaffolding or any mechanincal arrangements erected for ACP facade cleaning work etc complete as directed by Engineer In-charge.	51.00	m2
28	Providing and fixing 3mm thick plain aluminium composite sheet in partition, paneling and any other work fixing with using 3M tape, filling the joints using 789 grade silicon sealant with all required fittings and fixtures etc. complete as per the directions of Engineer-in-charge.	30.00	m2
	Carefully removing ACP sheet paneling with aluminium frame work and refixing the same at its original location by correcting slope without damaging it with all necessary fittings, fixtures, screws,		
29	gaskets, pump filled structural 789 grade silicon sealent & hardware, making joints watertight up to any hight including replacing damaged ACP sheet and aluminium members (if any) using scaffolding or any mechanincal arrangements erected for ACP facade cleaning work etc. completed as directed Engineer In-charge (Replacment of damaged ACP sheet and aluminium members will be paid in respective item.)	51.00	m2

30	Providing and pumping 789 grade Silicone sealants for the ACP sheet joints, window frames / window frame joints etc. including racking out and cleaning existing loose joints & making joints watertight up to any height using scaffolding or any mechanincal arrangements erected for ACP facade cleaning work etc. all complete as directed by Engineer Incharge.	100.00	Rmt
31	Providing and fixing in position tor steel bar having grade Fe-500D or more for reinforcement of various diameters for R.C.C. footings, foundations, slabs, beams, columns, canopies, staircases, chajjas, lintels, pardies, coping, fins, dowel bars with sleeve, tie bar, any other required work etc. as per detailed designs, drawings and schedules including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required completed as directed.	100.00	kg
32	Providing and laying super fluid micro concrete of approved manufacturer at any floor after reinforcement treatment coat including mixing with 10mm to 5mm size quartz aggregate in the ratio of 1 part Pidilite make roff crete to 0.75 part of quartz aggregate by weight providing marine plywood formwork in line and level, cleaning, curing etc. complete.	500.00	kg
33	Drilling straight and inclined holes upto 300mm depth and upto 20mm dia in concrete / masonry using electrically operated drilling machine and fixing nipple for grouting, including scaffolding, conducting water test.	20.00	No
34	Grouting existing RCC structure as per following operations including scaffolding, sealing leak paths with lead wool, removing nipple, plugging the hole with neat cement paste by ram packing, cleaning etc. complete. 1) Add Sunflex powder 1.00 kg in one bag of cement of 50 kg with adequate water. 2) Using mechanical means of pressure grouting with the above mix. The pressure shall be 5-10 psi. 3) The grouting to be done into the cracks of ceiling, walls, columns, & beam if necessary. 4) After through grouting sealing the holes with cement slurry.	150.00	kg
35	Grouting in any RCC structure with low viscocity Monomor manufactured by M/s. CICO, SIKKA, MC Bouchmey, Sunanda Chemicals, Roffee etc. or any other approved brand epoxy based product of similar properties, as per manufacture's specification by providing suitable arrangement for grouting at pressure 2 to 3 kg / sqm. for all lift and leads. The grouting is to be done after cement grouting is completed etc. as directed.	50.00	kg
36	Providing and erecting at site bamboo double scaffolding wherever required to all height as directed by engineer incharge before commencement of work and removing the same after completion of all external work requiring scaffolding.	75.00	m2
37	Providing and erecting single bamboo scaffolding wherever required to all height as directed by engineer incharge before commencement of work and removing the same after completion of all external work requiring scaffolding.	188.00	m2

38	Providing and fabricating structural steel works in rolled/ extruded / tubular sections like joists, channels, angles, tees, hollow pipes and any other required sections, riveted, bolted or welded in built up sections for supports, rafters, purlins, railing, staircase, trusses, framed work etc. including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer as per detailed designs & drawings, fixing in position with connecting plates, braces etc. complete as directed.	500.00	Kg
39	P/F 12mm thick (minimum) Polycarbonate UV Insulated Sheets of Coxwell/ Danpal/ Palram/ DPI Daylighting make of approved colour in required shape, panel width shall not be laess than 900mm, panels shall be uniform in colour including all fittings and fixtures such as snap on connector with grip lock double tooth locking mechanisam, millfinish aluminium U profile end cap, required flashing at the junction of wall/concrete surface and sheets and other required fittings as per manufecturer specifications, including scaffolding etc.all complete as directed by Engineer In-charge.	132.00	m2
40	Providing, making and fixing fully glazed aluminium double glass partition using 15micron/ powder coated anodized aluminium section of size 100x37x1.5mm thick (1.90Kg/Rmt), P/F 5mm thick clear plain glass in two layer with all required fittings such as rubber gasket, silica gel, silicon selent, glazing clips, screws and other required fittings etc. completed as directed. (all alu. fittings should 15 micron anodized or powder coated.)	54.00	m2
41	Providing, making and fixing fully glazed aluminium partition/ fixed glazing using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr)15 micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium double groove partition section for frame, providing and fixing 5mm thick clear plain glass fixed with glazing clips, rubber gasket etc. complete.	81.00	m2
42	Providing and fixing in position two track aluminium sliding windows using sections of size 61 mm x 31mm x 1.3 mm (not less than 0.659kg/mtr) thick for bottom, sides and top. The shutter should be of bearing bottom of size 40 mm x18 mm x 1.25 mm (not less than 0.417kg/mtr) thick, top member of size 40 mm x 18 mm x 1.20 mm (not less than 0.475kg/mtr) thick, Interlocking section size of 43 mm x 27 mm x 1.30 mm (not less than 0.558kg/mtr) thick and handle section of size 43mm x 18 mm x 1.30 mm (not less than 0.424kg/mtr) thick including providing and fixing 5mm thk. glass in the shutter using rubber gasket, approved quality minimum two nos. PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittingsetc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated).	4.00	m2
43	Providing and fixing in position three track aluminium sliding windows using sections of size 92 mm x 31mm x 1.30 mm (0.933kg/mtr) thick for bottom, sections of size 92 mm x 31mm x 1.30 mm (0.933kg/mtr) thick for sides and top. The shutter comprising of bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.469kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing 5mm thk. glass in the shutter using rubber gaskek with require fittings such as approved quality minimum two nos.PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated).	12.00	m 2

44	P/F in position aluminium two track sliding windows in heavy anodized section 15 micron powder coated 30mm series including fixing of tracks, making holes for drainage water fixing 5mm thick clear double glass including adding silicate gel crystals or equivalent material in between two glasses, glazing clips, silicon sealant, rubber gasket, locks with handles and other require fittings, pressure patti,etc. all completed as directed. (all alu. fittings and sections should be 15 micron anodized or powder coated.)	4.00	m2
45	P/F in position aluminium three track sliding windows in heavy anodized section 15 micron powder coated 30mm series including fixing of tracks, making holes for drainage water fixing 5mm thick clear double glass including adding silicate gel crystals or equivalent material in between two glasses, glazing clips, silicon sealant, rubber gasket, locks with handles and other require fittings, pressure patti, etc. all completed as directed. (all alu. fittings and sections should be 15 micron anodized or powder coated.)	5.00	m2
46	Design, supply and installation of ACP work incorporating of 4 mm thick Aluminum Composite Cladding sheet of Altobond or Eurobond make of approved colour, the top and bottom layer of 0.5 mm thick Aluminum Sheet sandwitched with 3 mm thick polythylene core, supported by M. S. cleat duly black painted. The back up structure will be made of Aluminum 38 mm x 38 mm rectangular tube with all fittings, fixtures, hardware and pump filled 789 grade Silicone Sealant with all fittings and fixtures up to any height using scaffolding or any mechanincal arrangements erected for ACP facade cleaning work etc. completed as directed Engineer In-charge	70.00	m2
47	Providing and applying one coat of Berger Protectomastic self priming high build coating, solvent borne zinc rich primer, having thickness as per manufacturer specification including preparing the surface by thoroughly removing grease, oil and other containments preferebly by using Bison degreasing solvent, using mechanical tools along with manual chipping and wire brushing to remove loose rust, thoroughly dust down all surfaces, followed by one coat of Epilux – 4 High Build Epoxy finish having thickness as per manufacturer specification followed by two coats of acrylic polyurethane enamel paint of Bergerthane finish of Berger having thickness as per manufacturer specification including tools, taking all safety measures etc complete	155.00	m2
48	Providing and erecting mat scaffolding using H-frame and bamboos wherever required upto 15m height as directed before commencement of work and removing the same after completion of all works requiring scaffolding.	45.00	m2
49	Providing and applying Dr.Fixit Dampguard Classic(Base + Hardener) as per manufactures specification including scrapping applying first coat of Dampguard Classic over that applying Damguard Classic Putty followed by Scrapping and after that applying final coat of Damgurad Classic etc.complete all as directed.	45.00	m2
50	Disconnecting PVC storage tank by making necessary disconnect fitting and fixutres including making tank empty, removing tank from its position, and placing required location., after waterproofing work completed refixing the tank at its original position, making inlet and outlet connections at its original position, removing air lock if any with all tools and plants etc. completed as directed.(removing and refixing of PVC water tank is 1 Job)	2.00	Nos

51	Dismantling RCC slab surrounding cast iron rainwater pipe to easily removable by mechanical or manual means including breaking concrete by chiselling, wedging etc., and stacking the debris upto a distance of 50 metres as directed etc. complete.	39.00	Job
52	Providing, fabricating and fixing in position partly opaque and partly glazed aluminum anodized openable door in single or double leaf shutter using aluminum standard door section 80mm x 40mm (not less than 1.139kg/mtr) for verticals and middle, 100mm x 40mm (not less than 1.60kg/mtr) for top & bottom members, 4mm thick both side colour and designer aluminium composite sheet up to 1200mm height or as per plan and 5mm thick clear/ bajri glass above opaque panels, glazing clips, rubber gasket including using 3 nos stainless steel hinges 4" long for each shutter, 9" long stainless steel handles 2 nos. for each shutter, lock, stainless steel tower bolt 8" long 1 no for each shutter and other required fittings etc. all complete as directed. (All aluminium sections should be 15 micron anodized/ powder coated)	3.00	m2
53	Supplying, fabricating and fixing in position fully glazed single/ double leaf aluminum anodized openable door shutter using aluminum standard door section 80mm x 40mm (not less than 1.055 kg/mtr) for all verticals, top & bottom members, providing and fixing 5mm thick clear/ bajri glass, glazing clips, rubber gasket including heavy duty hinges, 1' long decorative stainless steel handles 2 nos. for each shutter, lock, vertical aluminium section at side etc. all complete as directed. (All aluminium sections should be 15 micron anodized/ powder coated and fittings should be approved before installation)	8.00	m2
54	Making connection / disconnection of G. I. Distribution branch with G. I. Main of following 25 to 40 mm nominal bore sizes by providing and fixing tee, including cutting and threading the pipe etc. Complete.	2.00	Nos
55	Carefully removing the existing G.I. pipe 12mm to 50mm diameter from floor / walls / slab etc. with out damaging the structures and taking out the same outside campus including scaffolding etc. completed as directed. (5% cost will be deducted from item of work for material taken outside IIT Campus)	20.00	Rmt
56	Providing and laying 15 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipes having weight as per IS specification to walls, ceilings, floors etc. with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including necessary scaffolding etc. or as directed etc. complete.	10.00	Rmt
57	Providing and laying 20 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipes having weight as per IS specification to walls, ceilings, floors etc. with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including necessary scaffolding etc. or as directed etc. complete.	5.00	Rmt

58	Providing and laying 25 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipes having weight as per IS specification to walls, ceilings, floors etc. with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including necessary scaffolding etc. or as directed etc. complete.	5.00	Rmt
59	Providing and laying 32 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipes having weight as per IS specification to walls, ceilings, floors etc. with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying primer and two coats of oil painting including necessary scaffolding etc. or as directed etc. complete.	2.00	Rmt
60	Providing and fixing 20mm dia. nominal bore gun metal gate valve with C.I. wheel of approved quality (screwed end) with required fittings and fixtures etc. completed as directed.	2.00	Nos
61	Providing and fixing 25mm dia. nominal bore gun metal gate valve with C.I. wheel of approved quality (screwed end) with required fittings and fixtures etc. completed as directed.	1.00	Nos
62	Carefully removing internal or external plaster, IPS of chajjas in patches or any length without damaging RCC structure or brickwork in the vicinity by using electric cutting tools including cutting a groove first to demarcate exact area of damage taken place—stacking the debrises with in 50 meter, cleaning the site using scaffolding or any mechanincal arrangements erected for ACP facade cleaning work etc. complete. including covering the furniture, floor, windows and partitions with plastic sheets while chipping. Note:- a) No extra payment shall be made for extra thickness removed. b) Proper tools to be used for removal of concrete and it should be seen by contractor no damage on the other side / near by area will be taken place and if required other portions are to be checked by the contractors with respect to the damage before commencement of the work. c) The area in vertical plane shall be measured.	100.00	m2
63	Providing sand face plaster externally using approved screened sand in all positions including base coat of 15mm thick in cement mortar 1:4 using water proofing compound at the rate of 1kg per cement bag and curing the same for not less than two days and keeping the surface of base coat rough to receive the sand faced treatment not to exceed 8mm thick in cement mortar 1:4, finishing the surface by taking out grains and curing for 14 days using scaffolding or any mechanincal arrangements erected for ACP facade cleaning work etc. complete.	100.00	m2
64	Chipping the R.C.C surface and cleaning the rusted reinforcment and exposed surface by wire brush mechanical device or any other established method and applying rust removing solution of approved make and quality with cotton waste swab to reinforcement and allowing to dry the same for 24 hour, brushing of loose particles and applying first coat of rust preventive coating of polymer and cement slurry in 1:1.5 proportion with soft brush without adding water including applying another coat of rust preventing after 4 hours allowing air curing for 48 hours etc. Including scaffolding etc. Complete.	10.00	m2

Annual Control of the	65	Providing and applying an effective bond coat of Polymer (SBR) approved by IITB and cement in the proportion of 1:1 by using brush in multiples coats as required to accommodate the whole thickness of polymer modified mortar wherever required including scaffolding wherever required on the surface of old concrete / repaired concrete Polymer (SBR) of approved manufacturer should have the following properties: Suspended solid particles should not be less than 40% Specific gravity should not be more than 1.01 · PH should not be less than 8.5 Note: The actual consumption of polymer shall be measured for payment on weight basis. Challans of authorized dealer will be verified.	10.00	Kg
	66	Providing and Placing in position readymix polymer mortar manufacture by Dr. Fixit, Sunanda, Roff, MC Bouchmey, Chembond and adding water in the proportion of 1:0.14 (polymer mortar: water) in prepared grooves / cracks of the concrete court in layers as directed including mixing the polymer mortar with water using forced action mixer mild curing with water for 3 days and finishing the surface in all respect including scaffolding etc. Complete. (Payment will be paid for the actual quantity of polymer mortar PX used on weight basis. Challans of authorised Dealer will be verified etc all complete as directed by Estate office).	490.00	Kg
	67	Providing and applying acrylic synthetic plaster (Dura plaster) of IITB approved make manufacturer over existing cement plaster or concrete surface including removing existing paint/synthetic plaster to receive the acrylic synthetic plaster as per manufacturer specification Including all the necessary tools & plants, stepladder etc, complete all as directed by Engineer in charge.	300.00	m2
	68	Providing and applying exterior coating for wall including Cleaning the surface, removing the laitance, greese, old paints, contaminants, curing compound with wire brushing with water pressure wash. Fine hair line cracks more than 0.50 mm must be widened up to 5 mm minimum in V shape and then fill cracks with Dr. Fixit Crack-X Paste on masonry plaster surface. Apply primer coat prepared with Dr. Fixit Crack-X Paste and water in 1:1 proportion over the crack. Fill Dr. Fixit Crack-X Paste when the surface is tacky and not dried completely. Press Dr. Fixit Crack-X Paste firmly into the crack with a spatula or putty knifes and level with the surface. Care must be taken to avoid formation of cavities or bubbles during application. Allow it to set for 24 hours and then apply another coat of Dr. Fixit Crack-X Paste. Apply one coat of Dr. Fixit Primeseal with water in proportion of 2:1 and stir well until a uniform consistency is achieved. Apply a single coat of diluted Primeseal on the cleaned substrate. Allow it to dry for 2 to 3 hours. Apply Base coat of undiluted Dr. Fixit Raincoat Waterproof Coating over the primed surface. Allow the Dr. Fixit Raincoat Waterproof Coating to dry for 4 – 6 Hrs of approved colour. Apply using brush / roller / airless spray. Apply top coat of undiluted High Build durable exterior waterproof wall coating Dr. Fixit Raincoat Select Top coat over the Dr. Fixit Raincoat Waterproof Coating at applied areas of approved colour. Apply using brush / roller / airless spray to achieve DFT of 170 – 180 microns. Allow the Dr. Fixit Raincoat Select Top coat to dry for 6 – 8 Hrs.	300.00	m2
		Allow the coated surface to air cure fully for 7 days. Work includes covering the floor, window glass with plastic sheet and as directed by this office. Work Shall be got executed through certified applicator of the product manufacturing company only and work shall be guaranteed for 03 years by the contractor on requisite stamp paper including submitting written guarantee from said certified applicator. Contractor to submit re-counsillation statement along with challans for work done.		
		Ü		

69	Providing and laying integral cement based treatment for waterproofing on horizontal surface at all depth below ground level for under ground structures as directed by Engineer-in-Charge and consisting of: i) Ist layer of 22mm to 25mm thick approved and specified shahabad stone slab over a 25mm thick base of cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound 2% by weight of cement conforming to IS:2645 in the recommended proportion over the leveling course (leveling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound. ii) 2nd layer of 25mm thick cement mortar 1:3 (1 cement: 3 coarsesand) mixed with water proofing compound in recommended proportions. As directed by Engineer Incharge.	18.00	m2
70	Providing and laying integral cement based treatment for waterproofing on vertical surface by fixing rough shahabad stone slab 22mm to 25mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportion with a gap of 20mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 Cement : 3 coarse sand) 20mm thick with neat cement punning mixed with waterproofing compound in recommended proportion complete at all levels and as directed by Engineer in charge.	97.00	m2
71	Providing and fixing not less than 16 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut Garnite (area of slab upto 0.50 m2) for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement: 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.	24.00	m2
72	Providing and laying Kotah stone for flooring, skirting, tread, riser of steps 25mm to 30mm thick of required size in plain / diamond pattern on a bed of 1:4 cement mortar (1 cement : 4 crush sand) or 20 mm thick plaster of cement mortar 1:3 (1 cement : 3 coarse sand) including cement float, filling joints with neat cement slurry, curing, polishing and cleaning complete.	5.00	m2
73	Providing and laying in position machine batched and machine mixed design mix M-25 (1:1:2) grade cement concrete for all work above plinth level upto any floor level for reinforced cement concrete work, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge including compacting, roughening the surface if special finish is to be	6.00	m3
74	provided, casting cubes and testing etc. completed as directed. Centering and shuttering including strutting, propping etc. and removal of form for all heights ::Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	15.00	m2
75	Centering and shuttering including strutting, propping etc. and removal of form for all heights :Suspended floors, roofs, landings, staircase waste slab, balconies, cantilever chajjas and access platform	15.00	m2

76	Centering and shuttering including strutting, propping etc. and removal of form for all heights :Lintels, beams, plinth beams, girders, bressumers and cantilevers	15.00	m2
77	Disposing debris, loose stones, boulders, concrete pieces broken etc. collected and stacked as directed including loading in trucks, transporting out of IIT Campus including obtaining approval from Government/ private land owners for disposing off on to their approved location. The contractor will be solely responsible for disposing debrises out of campus and the debris are to be removed from site within 72 hours from stacking (30% voids will be deducted from actual measurement for debris, loose stones, boulders, concrete pieces).	217.00	m3

- 1) Note: This schedule of work is given for reference purpose only. Contractors are requested to quote your rates online in financial bid.
- 2) If you will engage labourer 20 or more any day, you have to get labour licence as per contract Regulation & Abolition Act 1970 Rule 1971, and also, you have to keep all such recored for inspection to the Principal Employer. If you will engage labour up to 10 Nos. per day, you have to file returns after completion of work as per Building & Construction Act to the Office of Regional Labour Commissioner (Central), Sion, Mumbai.
- 3) This work is to be executed as per the the clauses mentioned in the tender document signed by you. In addition to the existing safety clause of the tender document a penalty of Rs.5,000/- per case will be recovered from the bills of the particular works, in case any such safety violations are noticed.
- 4) 01% amount will be deducted from the bills for safety related measures which will be reimburse along with the final bill.
- 5) Taxes as per government notification time to time.
- 6) Contractor must pay GST Taxes to concern authority within 30 days time limit after receipt of payment from IIT Bombay & said record must be submitted to IIT Bombay Accounts Section, otherwise action will be taken as deemed fit.
- 7) If any malpractices / fraud / negligent professional behaviour or any discrepancy / inconsistency / disparity / deviation / disagreement / dissimilarity / mismatch noticed, their contract will be terminated by issuing one month notice by following legal procedure and will be blacklisted and informed to all Government Authorities and Organisations.

Superintending Engineer (I/C)

Page 12 of 12