

MIT WPU Campus at Goa

Summary of Plumbing & Sanitation Works		AD25122_13-01-2026_R0
SR. NO.	DESCRIPTION OF WORKS	
	PLUMBING AND SANITATION WORKS	
1	SANITARY FIXTURES AND FITTINGS	
	SANITARY FIXTURES AND FITTINGS SUB TOTAL OF SECTION-1	₹ 0.00
2	WATER SUPPLY	
	WATER SUPPLY SUB TOTAL OF SECTION-2 OPTION-1	₹ 0.00
	WATER SUPPLY SUB TOTAL OF SECTION-2 OPTION-2	₹ 0.00
3	INTERNAL DRAINAGE	
	INTERNAL DRAINAGE SUB TOTAL OF SECTION-3 OPTION-1 (PP Low Noise)	₹ 0.00
	INTERNAL DRAINAGE SUB TOTAL OF SECTION-3 OPTION-2 (Hubless Cast Iron)	₹ 0.00
4	EXTERNAL DRAINAGE & STORM WATER	
	EXTERNAL DRAINAGE SUB TOTAL OF SECTION-4	₹ 0.00
	TOTAL COST OF TENDER FOR PLUMBING AND SANITATION WORKS (WATER SUPPLY OPTION-1 WITH DRAINAGE OPTION-1)	₹ 0.00
	TOTAL COST OF TENDER FOR PLUMBING AND SANITATION WORKS (WATER SUPPLY OPTION-2 WITH DRAINAGE OPTION-1)	₹ 0.00
	TOTAL COST OF TENDER FOR PLUMBING AND SANITATION WORKS (WATER SUPPLY OPTION-1 WITH DRAINAGE OPTION-2)	₹ 0.00
	TOTAL COST OF TENDER FOR PLUMBING AND SANITATION WORKS (WATER SUPPLY OPTION-2 WITH DRAINAGE OPTION-2)	₹ 0.00
	GST %	
	NET TOTAL COST OF TENDER FOR PLUMBING AND SANITATION WORKS (WATER SUPPLY OPTION-1 WITH DRAINAGE OPTION-1)	₹ 0.00
	NET TOTAL COST OF TENDER FOR PLUMBING AND SANITATION WORKS (WATER SUPPLY OPTION-2 WITH DRAINAGE OPTION-1)	₹ 0.00
	NET TOTAL COST OF TENDER FOR PLUMBING AND SANITATION WORKS (WATER SUPPLY OPTION-1 WITH DRAINAGE OPTION-2)	₹ 0.00
	NET TOTAL COST OF TENDER FOR PLUMBING AND SANITATION WORKS (WATER SUPPLY OPTION-2 WITH DRAINAGE OPTION-2)	₹ 0.00

MIT WPU Campus at Goa

Important Points to be noted by Tenderers	
1	The following Quantities are based on the conceptual toilet layouts and drawings, and it may vary with final drawings and Client's / Architect's requirements. The BOQ hereinunder is calculated on the basis of the enclosed tender drawings for plumbing.
2	Plumbing and drainage works for all the toilets and Kitchen ,Pantry areas of the building are considered in this BOQ. Any change in the requirement of the Client / Interior Designer / Architect will result into variation of the quantities and the tenderer shall consider the same while quoting for this tender.
3	Being a Educational project , the tenderer shall be prepared for the variation in the quantities of the BOQ hereinunder, considering the variation in the requirement of the clients / Architect / Interior Designers. The tenderer shall absorb any increase or decrease in the final quantities being executed under the scope of this tender.

BOQ of Plumbing & Sanitation Work				AD25122_13-01-2026_R0	
Item No.	Description of Work	Unit	Total Quantity	With Material	
				Rate in Rs.	Amount in Rs.
	PLUMBING WORKS				
	SECTION – 1.00				
A)	SANITARY FIXTURES AND FITTINGS (only Installation)				
1.1	Receiving, checking, storing and fixing, in position European water closet comprising of Wall hung European W.C. Pan in white colour, on approved type of chairs. Concealed flushing cistern as directed .C.P jet spray / health faucet with required length of flexible tube, clamp and bracket for fixing to wall.15 mm C.P. brass heavy quality angle stop cocks for flushing cistern and jet spray / health faucet.Solid bakelite water closet cover and seat with C.P. hinges and rubber buffers.Fixing W.C. unit with chair brackets and accessories in position.Necessary pipe connection to C I / UPVC soil pipe.Painting bracket with two coats of white enamel paint over a coat of primer,	Nos.	50.00		-
1.2	Instalation, Testing & commissioning of Rectangular wash hand basin with tap hole on basin / counter comprising of .Concealed type brackets fixed to wall with adjustable clamp to push against counter rim.32 mm heavy plated C.P. waste coupling fitting with or without pop-up.32 mm heavy plated C.P. bottle trap with cleaning eye with extension piece and wall flange.Painting brackets with two coats of white enamel paint over one coat of primer.CP pillar cock / basin mixer with 15 mm C.P. brass heavy grade flexible inlet connection with C.P. nut (minimum length 450 mm) made to measure .15 mm C.P. brass heavy quality angle stop cocks .(Basin & counter, angle cocks, pillar cock / basin mixer, waste coupling fitting, bottle trap and Rest including brackets by contractor.)	Nos.	60.00		-
1.3	Installation,testing & commissioning, Oval wash basin with tap hole on basin / counter comprising of Concealed type brackets fixed to wall with adjustable clamp to push against counter rim. Concealed body parts for, basin spout fixed to wall with basin Spout, 32 mm heavy plated C.P. waste coupling fitting with or without pop-up., C.P. bottle trap with cleaning eye with extension piece and wall flange, Painting brackets with two coats of white enamel paint over one coat of primer.,CP Wash Basin Spout 15 mm C.P. brass heavy grade flexible inlet connection, 15 mm C.P. brass heavy quality angle stop cocks (Basin & counter, angle cocks, basin spout, waste coupling fitting, bottle trap and Rest including brackets by contractor)	Nos.	QRO		
1.3	Receiving, checking, storing and fixing, S. S. sink, single bowl of size not more than 600 / 450 mm and depth 200 mm with tap point on wall / counter comprising of :-Concealed type brackets fixed to wall with adjustable clamp to push against counter rim.40 mm heavy plated C.P. waste coupling fitting with or without pop-up.40 mm heavy plated C.P. bottle trap with cleaning eye with extension piece and wall flange.Painting brackets with two coats of white enamel paint over one coat of primer.15 mm CP sink cock / sink mixer table mounted / wall mounted(S.S. Sink, sink cock / sink mixer, waste coupling fitting, bottle trap supplied by Owner. Rest including brackets by contractor.	Nos.	QRO		

Item No.	Description of Work	Unit	Total Quantity	With Material	
				Rate in Rs.	Amount in Rs.
1.4	Receiving, checking, storing and fixing, S. S. sink, single bowl with drain board with tap point on wall / counter comprising of :Concealed type brackets fixed to wall with adjustable clamp to push against counter rim.40 mm heavy plated C.P. waste coupling fitting with or without pop-up.40 mm heavy plated C.P. bottle trap with cleaning eye with extension piece and wall flange.Painting brackets with two coats of white enamel paint over one coat of primer.15 mm CP sink cock / sink mixer table mounted / wall mounted(S.S. Sink with drain board, sink cock / sink mixer, waste coupling fitting, bottle trap and Rest including brackets by contractor.	Nos.	QRO		
1.5	Instaltaion, Testing & commissioning of screw down two way bib cocks with wall flange of heavy quality with all accessories, supplied by owners.	Nos.	50.00		-
1.6	Instaltaion, Testing & commissioning of heavy quality concealed stop cock with adjustable wall flange and all accessories, supplied by the contractor, of following nominal bore (NB) size -				
1.6.1	25 mm	Nos.	QRO		
1.6.2	20 mm	Nos.	60.00		-
1.6.3	15 mm	Nos.	QRO		
1.7	Instaltaion, Testing & commissioning of CP brass / S.S. towel rod , 500 / 600 mm. long and 20 mm. dia., with concealed type brackets fixed, to the wall with CP brass screws, etc. complete.	Nos.	QRO		
1.8	Instaltaion, Testing & commissioning of CP brass / S.S. towel ring , with concealed type brackets fixed, to the wall, with CP brass screws, etc. complete.	Nos.	QRO		
1.9	Instaltaion, Testing & commissioning of screw-to-wall type toilet paper-roll holder , fixed to the wall with CP brass screws, etc. complete.	Nos.	50.00		-
1.10	Instaltaion, Testing & commissioning of CP brass / stainless steel liquid soap dispenser with CP / SS cap and bracket, fixed to wall with CP brass screw, etc. complete.	Nos.	40.00		-
1.11	Instaltaion, Testing & commissioning of screw-to-wall type CP brass / S.S. Soap dish / tray fixed to wall with CP brass screws, etc., complete.	Nos.	40.00		-
1.12	Instaltaion, Testing & commissioning of CP brass / S.S. twin coat hook , fixed to wall / door with concealed CP screws etc. complete.	Nos.	50.00		-
1.13	Connecting kitchen & pantry equipment / sinks including fixing of 15 mm CP brass stop cocks, copper or CPVC pipe connection from stop cock to sink mixer necessary nuts, providing and connecting 40 mm C.P. trap for sink, connecting to the drain line. (Sink & mixers / taps / stop cocks supplied by contractor. Other material by contractor).	Nos.	QRO		
1.14	Drain connection to kitchen equipment (other than sinks) including necessary UPVC pipe and connections to drain (40/50 mm)	Nos.	QRO		
1.15	Instaltaion, Testing & commissioning of vitreous Large flat back urinals in white colour with concealed type wall hanger or special bracket in wall and hinged type C.P. dome gratings. C.P. waste pipe under each urinal pan, leading to the bottle trap below and painting with two coats of white enamel paints. (Urinal, bottle trap, speader, waste coupling etc. complete as required by Consultant / Architect / Client / E-I-C)	Nos.	40.00		-
1.16	Instaltaion, Testing & commissioning of automatic flushing systems supplied for owners for urinal to ensure flushing only when in use, comprising of all plumbing, electronic and electrical items, infra red / photo cells eyes / electrically operated solenoid valve step down equipment, concealed copper wiring with conduit etc. and any other item required to provide satisfactory functioning etc. complete as required by Consultant / Architect / Client / E-I-C	Nos.	40.00		-
1.17	Instaltaion, Testing & commissioning, of urinal Self Closing angle cock with all accessories etc. complete as required by Consultant / Architect / Client / E-I-C.	Nos.	QRO		
1.18	installation, testing and commissioning , of partition for urinal division plate etc. with all accessories etc. complete as required by Consultant / Architect / Client / E-I-C.	Nos.	30.00		-
1.19	Instaltaion, Testing & commissioning of shower, spout and Single lever divertor , for hot and cold water supply with all inlet and outlet connections complete as per requirements.	Nos.	QRO		
SANITARY FIXTURES AND FITTINGS SUB TOTAL OF SECTION-1					-
2	SECTION - 2.00				
B)	WATER SUPPLY				

Item No.	Description of Work	Unit	Total Quantity	With Material	
				Rate in Rs.	Amount in Rs.
Option-1 (PEX)					
2.1	Supply, Installaion, Testing & commissioning in trenches at ground level, ducts, terraces and inside toilets PEX pipes and fittings of approved quality, open, complete, including jointing with necessary complete with Brass fittings with SC-Contur such as sockets, bends, elbows, tees, reducers, unions . Flanges, clamps / structural steel supports,hangers etc., and, including testing, chasing, cutting, making good the surfaces, etc. complete of the following diameter size:. (Internal) (Domestic, Flushing, RO).				
	G.I. Heavy class pipe sleeves of specified diameter corresponding to the pipe size shall be provided wherever the pipes are crossing the fire rated walls/floors slab and sealing the sleeves with glasswool in between and fire sealant compound on either end, all as per E-I-C's requirement				
	Rubber lined stainless steel clamps and brackets, legend boards shall be included in the price				
2.1.1	40 mm	Rmt	QRO		
2.1.2	32 mm	Rmt	QRO		
2.1.3	25 mm	Rmt	210.00		-
2.1.4	20 mm	Rmt	600.00		-
2.1.5	15 mm	Rmt	QRO		
Option-2 (CPVC SDR-13.5)					
2.2	Supply, Installaion, Testing & commissioning, to wall, ceiling and floor, approved quality, CPVC SDR 13.5 pipes and fittings , conforming to ASTM D 2846, for sizes upto 50 mm and Sch 40 industrial piping for sizes above 50 mm confirming to ASTM F441, for Cold water supplies, approved make, including jointing with CPVC solvent cement and ensuring airtight joints, with necessary specials, couplers, unions, elbow, equal tees, tail piece, adapter (both male and female), reducer (single stage, double stage and triple stage), end cap, fabricated bend, etc., including testing, chasing, cutting, making good the wall, ceiling and floor etc. complete of the following nominal diameter (NB) size: (External) (Domestic, Flushing, RO).				
	G.I. Heavy class pipe sleeves of specified diameter corresponding to the pipe size shall be provided wherever the pipes are crossing the fire rated walls/floors slab and sealing the sleeves with glasswool in between and fire sealant compound on either end, all as per E-I-C's requirement.				
	Rubber lined stainless steel clamps and brackets, legend boards shall be included in the price.				
2.2.1	40 mm	Rmt	QRO		
2.2.2	32 mm	Rmt	QRO		
2.2.3	25 mm	Rmt	210.00		-
2.2.4	20 mm	Rmt	600.00		-
2.2.5	15 mm	Rmt	QRO		
External Water Supply (CPVC SDR 11)					
2.3	Supply, Installaion, Testing & commissioning of to wall, ceiling and floor with required, approved quality, CPVC SDR 11 pipes and fittings, conforming to ASTM D 2846, for sizes upto 50 mm and Corzan Sch 80 industrial piping for sizes above 50 mm confirming to ASTM F441, for cold & hot water supplies, including jointing with CPVC solvent cement and ensuring airtight joints, with necessary specials, couplers, unions, elbow, equal tees, tail piece, adapter (both male and female), reducer (single stage, double stage and triple stage), end cap, fabricated bend, etc., including testing, chasing, cutting, making good the wall, ceiling and floor etc. complete of the following nominal diameter (NB) size: (External) (Domestic, Flushing, RO).				

Item No.	Description of Work	Unit	Total Quantity	With Material	
				Rate in Rs.	Amount in Rs.
	G.I. Heavy class pipe sleeves of specified diameter corresponding to the pipe size shall be provided wherever the pipes are crossing the fire rated walls/floors slab and sealing the sleeves with glasswool in between and fire sealant compound on either end, all as per E-I-C's requirement				
	Rubber lined stainless steel clamps and brackets, legend boards shall be included in the price				
2.3.1	100 mm	Rmt	QRO		
2.3.2	80 mm	Rmt	QRO		
2.3.3	65 mm	Rmt	120.00		-
2.3.4	50 mm	Rmt	150.00		-
2.3.5	40 mm	Rmt	90.00		-
2.3.6	32 mm	Rmt	120.00		-
2.3.7	25 mm	Rmt	60.00		-
2.3.8	20 mm	Rmt	QRO		
2.3.9	15 mm	Rmt	QRO		
2.4	Supply, Installaion, Testing & commissioning of insulation of 9 mm thick nitrile rubber on PEX / uPVC / PB / CPVC / PPR-C / PE-AL-PEX pipe line for internal hot / cold / RO water supply pipe lines in the toilets / vetical shafts, of approved make and quality, complete, as directed, of the following Nominal bore (NB) size:				
2.4.1	50 mm	Rmt	QRO		
2.4.2	40 mm	Rmt	QRO		
2.4.3	32 mm	Rmt	QRO		
2.4.4	25 mm	Rmt	220.00		-
2.4.5	20 mm	Rmt	600.00		-
2.4.6	15 mm	Rmt	200.00		-
2.5	Supply, Installaion, Testing & commissioning of insulation of 19 mm thick nitrile rubber on PEX / uPVC / PB / CPVC / PPR-C / PE-AL-PEX pipe line for hot / cold / RO water supply pipe lines on terraces or in basements / service floors, open and exposed to atmosphere, including covering the same with 24G Aluminum sheet, of approved make, complete, as directed, of the following Nominal bore (NB) size:				
2.5.1	100 mm	Rmt	QRO		
2.5.2	80 mm	Rmt	QRO		
2.5.3	65 mm	Rmt	120.00		-
2.5.4	50 mm	Rmt	150.00		-
2.5.5	40 mm	Rmt	90.00		-
2.5.6	32 mm	Rmt	120.00		-
2.5.7	25 mm	Rmt	60.00		-
2.5.8	20 mm	Rmt	QRO		
2.5.9	15 mm	Rmt	QRO		
2.6	Supply, Installaion, Testing & commissioning of heavy quality cast bronze / brass ball valves of approved make, including flanges / unions, nuts, bolts, washers, etc. complete, as approved by the Architect and Engineer-in-charge for water supply lines of the following Nominal bore (NB) size:				
2.6.1	50 mm	Nos.	QRO		
2.6.2	40 mm	Nos.	6.00		-
2.6.3	32 mm	Nos.	2.00		-
2.6.4	25 mm	Nos.	36.00		-
2.6.5	20 mm	Nos.	8.00		-
2.6.6	15 mm	Nos.	QRO		
2.7	Supply, Installaion, Testing & commissioning of PN16 rated butterfly valve wafer type double eccentric disc (disc made of ductile iron with rilsan coated / SS 316), with rubber gasket, flanges / unions, flange adapters, nuts, bolts, washers, etc. complete, as approved by the Consultant and Engineer-in-charge for water supply lines of the following outer diameter (OD) size:				
2.7.1	150 mm	Nos.	QRO		

Item No.	Description of Work	Unit	Total Quantity	With Material	
				Rate in Rs.	Amount in Rs.
2.7.2	100 mm	Nos.	QRO		
2.7.3	80 mm	Nos.	QRO		
2.7.4	65 mm	Nos.	2.00		-
2.7.5	50 mm	Nos.	10.00		-
2.8	Supply, Installtaion, Testing & commissioning of heavy Quality Gun metal or brass Non return valve confirming to IS 778, with screwed / flanged ends, 20 Kg/m ² of approved make, on water supply lines of the following Nominal bore (NB) size:				
2.8.1	65 mm	Nos.	2.00		-
2.8.2	50 mm	Nos.	2.00		-
2.8.3	40 mm	Nos.	QRO		
2.8.4	32 mm	Nos.	QRO		
2.8.5	25 mm	Nos.	QRO		
2.8.6	20 mm	Nos.	QRO		
2.8.7	15 mm	Nos.	QRO		
2.9	Supply, Installtaion, Testing & commissioning of heavy quality Pressure reducing valves (PRV) of approved or equivalent make as approved. including flanges / unions, nuts, bolts, washers, Pressure guages, etc. complete by the Architect and Engineer-in-charge for water supply lines of the following Nominal bore (NB) size: The upstream water pressure may be upto 15 Kg/cm ² g max. and downstream pressure min. 1 Kg/cm ² g.				
2.9.1	32 mm	Nos.	QRO		
2.9.2	25 mm	Nos.	QRO		
2.9.3	20 mm	Nos.	QRO		
2.10	Supply, Installtaion, Testing & commissioning of electronic type level indicator for water tanks mounting in panel with level display, alarm (level low & high), and manual reset for alarm, potential free set point contacts etc. complete with electrical wiring to probes and all accessories complete the work. Provision to connect to the building Automation system or pump controller through a suitable port.	Nos.	10.00		-
2.11	Supply, Installtaion, Testing & commissioning in position of approved quality G.M. float valve with copper ball float and brass rods of required length suitable for test pressure of 15Kg/sqcm of the following sizes:				
2.11.1	65 mm	Nos.	2.00		-
2.11.2	50 mm	Nos.	2.00		-
2.11.3	40 mm	Nos.	QRO		
2.11.4	32 mm	Nos.	QRO		
2.11.5	25 mm	Nos.	QRO		
2.11.6	20 mm	Nos.	QRO		
2.12	Constructing brick masonry chamber for valve , in 230 mm. thick brick masonry, in CM 1:5, constructed over a bed of 1:4:8 CC 150 mm. thick, plastering inside, outside and all exposed surfaces with 1:3 CM, 15 mm thick, including providing and fixing CI frame and cover weighing Not less than 12.5 Kg, including painting of cover with black bitumastic paint etc. complete. Size of chamber is				
2.12.1	600 x 600 mm. Inside, 600 mm deep.	Nos.	2.00		-
2.12.2	900 x 900 mm. Inside, 900 mm deep	Nos.	2.00		-
2.13	Supply, Installtaion, Testing & commissioning of heavy class GI puddle flange for pipes epoxy coated, of minimum 400 mm long clear ends outside the RCC surface, and fixed in underground sumps, water tanks etc. complete, with end joints either screwed / flanged as required with endcaps / plugs complete as per the requirement of E-I-C.				
2.13.1	350 mm	Nos.			
2.13.2	300 mm	Nos.			
2.13.3	250 mm	Nos.			

Item No.	Description of Work	Unit	Total Quantity	With Material	
				Rate in Rs.	Amount in Rs.
2.13.4	200 mm	Nos.			-
2.13.5	150 mm	Nos.			
2.13.6	125 mm	Nos.			
2.13.7	100 mm	Nos.			
2.14	Charges for connection to main water supply line from the local authority as per the local rules and regulations, including excavation in all kind of soil (including hard rock), dewatering, refilling, watering, ramming and removing the surplus excavated material dumping it on site or carting away to lead of 100 meters as directed and making good the same complete as required. Liasioning fees shall Not be included in the rates. Piping and valves paid as per respective items.	Job	1.00		-
2.15	Supply,Instalaltaion, Testing & commissioning of Air release valve , double acting, of approved make, having 2 chambers with ebonite ball, small and large orifices with isolating stop screw down valve, GM seats, high tensile brass spindle with cap, conforming to standard water works pattern. Flanges as per IS : 15381, flat faced and drilled, complete of the following Nominal bore (NB) size:				
2.15.1	25 mm	Nos.	4.00		-
2.16	Supply, Instalaltaion, Testing & commissioning of Water Meter with direct reading dial in KL with all integral parts of gun metal or brass with neccessary fitting such as threaded pieces, unions pressure guage and isolation cock, flanges piece for future removal, flanges/unions complete with all necessary testing charges and obtaining test cetificates from municipal authorities.				
2.16.1	65 mm	Nos.	2.00		-
2.16.2	50 mm	Nos.	2.00		-
2.17	Supply,Instalaltaion,Testing & commissioning of C.I. "Y" strainer (screwed / flanged) with stainless steel fine wire mesh perforated sheet basket with necessary flanged / unions nuts, bolts and washers complete as required.				
2.17.1	100 mm	Nos.			
2.17.2	80 mm	Nos.			
2.17.3	65 mm	Nos.	2.00		
2.17.4	50 mm	Nos.	2.00		-
2.17.5	40 mm	Nos.	2.00		-
2.17.6	32 mm	Nos.			-
2.17.7	25 mm	Nos.			
	WATER SUPPLY SUB TOTAL OF SECTION-2 OPTION-1				-
	WATER SUPPLY SUB TOTAL OF SECTION-2 OPTION-2				-
	SECTION - 3.00				
C)	INTERNAL DRAINAGE				
	Option-1 (PP Low noise)				
3.1	Supply, Instalaltaion, Testing & commissioning of heavy duty, PP Low Noise , Pipe conforms to IS 13592:92 and fitting conforms to IS 14735:99,open, low density, to wall, ceiling and floor, approved quality, complete, for soil and waste water drain including jointing with rubbering / solvent / solution and airtight joints, with necessary specials, couplers, elbow, equal tees, tail piece, adapter (both male and female), reducer (single stage, double stage and triple stage), end cap, fabricated bend, etc., and lubricant or jointing material, including testing, cutting, making good the wall, ceiling and floor etc. complete any other item required to provide standard commisioning and erection as approved by Architects / Consultants. Make and model with all necessary accessories subjected to requirement of Architect/Client/PMC at the time of execution. of the following nominal bore (NB) size: The rate shall include the cost of vent cowl for vertical downtake pipes.				

Item No.	Description of Work	Unit	Total Quantity	With Material	
				Rate in Rs.	Amount in Rs.
	G.I. Heavy class pipe sleeves of specified diameter corresponding to the pipe size shall be provided wherever the pipes are crossing the fire rated walls/floors slab and sealing the sleeves with glasswool in between and fire sealant compound on either end, all as per E-I-C's requirement.				
	Galvanised clamps and brackets, legend boards shall be included in the price				
	Excavation, backfilling, underground treatment, chasing, concealing treatment, painting will be paid separately.				
3.1.1	150 mm	Rmt	255.00		-
3.1.2	110 mm.	Rmt	713.00		-
3.1.3	75 mm.	Rmt	226.00		-
3.1.4	50 mm for waste water for Wash basin & Urinal	Rmt	65.00		-
3.2	Supply, Installtaion,Testing & commissioning of PP 'P'-traps of self cleansing design with water seal not less than 50 mm., with or without vent, cutting chases / hole in floors / slabs and bringing the same in proper condition and shape after placing the trap in right position in case of suspended / open plumbing or setting the trap in 1:2:4 CC in case of concealed plumbing , etc. complete, as required. The trap shall be ' P' type, of following sizes:				
3.2.1	110 x 110 mm OD inlet / outlet	Nos.	50.00		-
3.2.2	110 x 75 mm OD inlet / outlet	Nos.	167.00		-
Option-2 (Hubless Cast Iron)					
3.3	Supply, Installation , Testing & commissioning of heavy I.S.I quality Hubless cast iron centrifugal pipes and fittings , conforming to IS: 3989 - 1984, as approved, in proper line and level with drip seal joints / lead caulked joints complete with holder bats or dash fasteners fixed to walls or ceiling or run on floor or in trenches at required slopes and necessary special heavy detachable hot dip galvanized M.S. brackets, hangers, clamps and brick / RCC pedestals as directed including two coats of approved shade over a primer for exposed pipe and 2 coats of anti corrosive paint for concealed pipes after testing hydraulically, including clamps, bracket, supports in MS making good walls etc. The rates for pipe shall be inclusive of all the specials. The diameter of pipe shall be of the following nominal bore (NB): The rate shall include the cost of CI cowl for vertical downtake pipes.				
3.3.1	150 mm	Rmt	255.00		-
3.3.2	110 mm.	Rmt	713.00		-
3.3.3	75 mm.	Rmt	226.00		-
3.3.4	50 mm for waste water for Wash basin & Urinal	Rmt	65.00		-
3.4	Providing, fixing, jointing and testing Cast iron traps of self cleansing design with water seal not less than 50 mm., with or without vent, jointing with proper refined pig lead joints, cutting chases / hole in floors / slabs and bringing the same in proper condition and shape after placing the trap in right position in case of suspended / open plumbing or setting the trap in 1:2:4 CC in case of concealed plumbing , etc. complete, as required. The trap shall be ' P' type, of following sizes: Temporary airtight PVC cover to be provided to prevent dirt entry.				
3.4.1	110 x 110 mm OD inlet / outlet	Nos.	50.00		-
3.4.2	110 x 75 mm OD inlet / outlet	Nos.	167.00		-
3.5	Providing and laying 1:2:4 cement concrete 100 mm thick all round the pipe including 100 mm thick bed concrete for the following C.I. / PVC / PP pipes and specials below floor including necessary shuttering etc. complete as required and steel reinforcement .				
3.5.1	150 mm.	Rmt	297.00		-
3.5.2	100 mm.	Rmt	21.00		-
3.5.3	75 mm.	Rmt	QRO		
3.5.4	50 mm.	Rmt	QRO		
3.6	Supply, Installtaion, Testing & Commissioning of Heavy class S.S. grating with Mosquito proof S.S. strainer of approved or equivalent make, as approved, (cockroach trap) including setting in floor with cement mortar to match with floor finish as per architect requirements.	Nos.	167.00		-

Item No.	Description of Work	Unit	Total Quantity	With Material	
				Rate in Rs.	Amount in Rs.
3.7	Supply, Instalation, Testing & commissioning of heavy duty, PVC SWR Type-A pipes, - 6 kg/cm2 pressure, of Approved or equivalent makes, open, low density, to wall, ceiling and floor, approved quality, complete, for rain water pipes including jointing with rubbering / solvent / solution and airtight joints, with necessary specials, couplers, elbow, equal tees, tail piece, adapter (both male and female), reducer (single stage, double stage and triple stage), end cap, fabricated bend, etc., and lubricant or jointing material, including testing, cutting, making good the wall, ceiling and floor etc. complete of the following nominal bore (NB) size: The rate shall include the cost of PVC cowl for vertical downtake pipes.				
	G.I. Heavy class pipe sleeves of specified diameter corresponding to the pipe size shall be provided wherever the pipes are crossing the fire rated walls/floors slab and sealing the sleeves with glasswool in between and fire sealant compound on either end, all as per E-I-C's requirement				
	Galvanised clamps and brackets, legend boards shall be included in the price				
	Excavation, backfilling, underground treatment, chasing, concealing treatment, painting will be paid separately.				
3.7.1	200 mm	Rmt	QRO		
3.7.2	160 mm	Rmt	537.00		-
3.7.3	110 mm	Rmt	261.00		-
3.7.4	75 mm	Rmt	QRO		
3.7.5	50 mm	Rmt	QRO		
3.8	Providing and constructing Brick support pillars for G.I / C.I / PVC / PPR / CPVC / uPVC / Pex, etc. pipes at ground level, service floor or over terrace in CM 1 : 4 complete with plastering as approved.	Nos.	QRO		
3.9	Providing and constructing R.C.C (mix 1:2:4) support pillars for G.I / C.I / PVC / PPR / CPVC / uPVC / Pex, etc. pipes at ground level, service floor or over terrace complete with plastering as approved.	Nos.	QRO		
3.9	Supply, Instalation, Testing & commissioning of clean out plug for Low Noise pipes, Suspended / Sunken with suitable inlet key for opening, complete as required.				
3.9.1	Suitable for 200 dia. NB pipe.	Nos.	QRO		
3.9.2	Suitable for 150 dia. NB pipe.	Nos.	24.00		-
3.9.3	Suitable for 100 dia. NB pipe.	Nos.	24.00		-
3.9.4	Suitable for 80 dia. NB pipe.	Nos.	QRO		
3.9.5	Suitable for 50 dia. NB pipe.	Nos.	QRO		
3.10	Supply, Instalation, Testing & commissioning of Clean out plug for CI Suspended pipes / Sunken , with suitable inlet key for opening, complete as required.				
3.10.1	Suitable for 200 dia. NB pipe.	Nos.	QRO		
3.10.2	Suitable for 150 dia. NB pipe.	Nos.	24.00		-
3.10.3	Suitable for 100 dia. NB pipe.	Nos.	24.00		-
3.10.4	Suitable for 80 dia. NB pipe.	Nos.	QRO		
3.10.5	Suitable for 50 dia. NB pipe.	Nos.	QRO		
3.11	Supply, Instalation, Testing & commissioning of rain water " KHURRAH " size 300 x 300 mm required depth with lead flashing around rainwater pipe with one piece lead sheet of 3 mm thick set on a layer of cold bitumen. Including heavy duty CI grating complete as required.	Nos.	QRO		
3.12	Supply, Instalation, Testing & commissioning of Vent cowl , on C.I / PVC / PP ventilating pipes and verticals for soil, waste and rain water Pipes at top level / terrace level, as specified and required, etc. complete.	Nos.	48.00		-
	INTERNAL DRAINAGE SUB TOTAL OF SECTION-3 OPTION-1 (PP Low Noise)				-
	INTERNAL DRAINAGE SUB TOTAL OF SECTION-3 OPTION-2 (Hubless Cast Iron)				-
	SECTION - 4.00				
D)	EXTERNAL DRAINAGE & STORM WATER				

Item No.	Description of Work	Unit	Total Quantity	With Material	
				Rate in Rs.	Amount in Rs.
4.1	Supply, Installtion, Testing & commissioning of uPVC SN8 pipe and laid to correct levels below ground in trenches upto required depth including excavation in all kind of soil (including hard rock), dewatering, refilling, watering, ramming and removing the surplus excavated material dumping it on site or carting away to lead of 100 meters as directed and making good the same complete as required. Providing and fixing cement concrete 1:4:8, 100 mm thick for bedding and haunches upto the center of pipe including for joints and other critical areas as directed as per site conditions. Also pipe to be N casing with sand filling. complete any other item required to provide standard commisioning and erection as approved by Architects / Consultants. Make and model with all necessary accessories subjected to requirement of Architect / Client / PMC at the time of execution. The pipes shall be of following nominal bore (NB) size pipes :				
4.1.1	250 mm	Rmt	QRO		
4.1.2	200 mm	Rmt	50.00		-
4.1.3	160 mm	Rmt	200.00		-
4.1.4	110 mm	Rmt	70.00		-
4.2	Supply, Installtion, Testing & commissioning of salt glazed stoneware gully trap , class `A', including excavation in all soil types, bailing or pumping out water from trenches, shoring whenever necessary testing,refilling, in layers ramming & consolidation, removing away the surplus earth & spoils, dumping it on site or carting away to lead of 100 meters as directed, incl. embedding the trap in CC 1:2:4, construction of brick masonry chamber, internal clear size 300 mm. x 300 mm., in brick work 230 mm. thick, in CM 1:4, plastering inside, outside and all exposed surfaces with CM 1:3, 12 mm. thick, providing, fixing CI frame and cover 300 x 300 mm., weighing together not less than 12.5 Kg., painting of all CI items with 3 coats of approved bitumastic paint, etc. Complete.of the following diameter size:				
4.2.1	salt glazed stoneware gully trap , class `A', of 100 mm. dia. inlet and 150 mm. outlet,	Nos.	8.00		-
4.2.2	salt glazed stoneware gully trap , class `A', of 100 mm. dia. inlet and 100 mm. outlet,	Nos.	QRO		
4.3	Providing and fixing, best Indian make 1st quality, salt glazed stoneware Sewer (intercepting) trap , of 150 mm. x 150 mm. size with cleaning eye cap and metal stopper chain, set in CC 1:2:4 etc., complete in last manhole including vent / fresh air pipe.	Nos.	QRO		
4.4	Constructing inspection chamber 450 x 450 mm clear size in 230 mm thick brick masonry with cement mortar (1:5) as per ISI with 150 mm thick 1:3:6 P.C.C. bedding, necessary benching in concrete (M-15) and 20 mm thick smooth cement plaster (1:4) from inside, C.I. steps as necessary and rough cement plaster 20 mm thick in c.m. 1:4 outside, with 50 kg. Full size C.I. manhole cover and frame (Approved Make) including all excavation in all soil types, refilling sides in layers with selected earth ramming and consolidating, removing away surplus soil or dumping it on site as directed (Depth upto 1500 mm to invert).	Nos.	QRO		
4.4.1	Extra over and above item no. 4.4 beyond 1.5 m. depth, for every additional depth of 0.1 m. or part thereof, for brick masonry Inspection chamber.	Nos.	QRO		
4.5	Constructing inspection chamber 600 x 600 mm clear size in 230 mm thick brick masonry with cement mortar (1:5) as per ISI with 150 mm thick 1:3:6 P.C.C. bedding, necessary benching in concrete (M-15) and 20 mm thick smooth cement plaster (1:4) from inside, C.I. steps as necessary and rough cement plaster 20 mm thick in c.m. 1:4 outside, with 80 kg. Full size C.I. manhole cover and frame (Approved Make) including all excavation in all soil types, refilling sides in layers with selected earth ramming and consolidating, removing away surplus soil or dumping it on site as directed (Depth upto 1500 mm to invert).	Nos.	12.00		-
4.5.1	Extra over and above item no. 4.5 beyond 1.5 m. depth, for every additional depth of 0.1 m. or part thereof, for brick masonry Inspection chamber.	Nos.	QRO		

Item No.	Description of Work	Unit	Total Quantity	With Material	
				Rate in Rs.	Amount in Rs.
4.6	Constructing inspection chamber / manhole 900 x 800 mm clear size in 230 mm thick brick masonry with cement mortar (1:5) as per ISI with 150 mm thick 1:3:6 P.C.C. bedding, necessary benching in concrete (M-15) and 20 mm thick smooth cement plaster (1:4) from inside, C.I. steps as necessary and rough cement plaster 20 mm thick in c.m. 1:4 outside, with 150 kg. Full size C.I. manhole cover and frame (Approved Make) including all excavation in all soil types, refilling sides in layers with selected earth ramming and consolidating, removing away surplus soil or dumping it on site as directed (Depth upto 1500 mm to invert).	Nos.	10.00		-
4.6.1	Extra over and above item no. 4.6 beyond 1.5 m. depth, for every additional depth of 0.1 m. or part thereof, for brick masonry chamber.	Nos.	QRO		
4.7	Constructing inspection chamber / manhole 1200 x 900 mm clear size in 230 mm thick brick masonry with cement mortar (1:5) as per ISI with 150 mm thick 1:3:6 P.C.C. bedding, necessary benching in concrete (M-15) and 20 mm thick smooth cement plaster (1:4) from inside, C.I. steps as necessary and rough cement plaster 20 mm thick in c.m. 1:4 outside, with 150 kg. Full size C.I. manhole cover and frame (Approved Make) including all excavation in all soil types, refilling sides in layers with selected earth ramming and consolidating, removing away surplus soil or dumping it on site as directed (Depth upto 1500 mm to invert).	Nos.	4.00		-
4.7.1	Extra over and above item no. 4.7 beyond 3.0 m. depth, for every additional depth of 0.1 m. or part thereof, for brick masonry manhole / Inspection chamber.	Nos.	QRO		
4.8	Constructing inspection chamber / manhole 1200 x 1200 mm clear size in 230 mm thick brick masonry with cement mortar (1:5) as per ISI with 150 mm thick 1:3:6 P.C.C. bedding, necessary benching in concrete (M-15) and 20 mm thick smooth cement plaster (1:4) from inside, C.I. steps as necessary and rough cement plaster 20 mm thick in c.m. 1:4 outside, with 150 kg. Full size C.I. manhole cover and frame (Approved Make) including all excavation in all soil types, refilling sides in layers with selected earth ramming and consolidating, removing away surplus soil or dumping it on site as directed (Depth upto 1500 mm to invert).	Nos.	QRO		
4.8.1	Extra over and above item no. 4.8 beyond 3.0 m. depth, for every additional depth of 0.1 m. or part thereof, for brick masonry manhole / Inspection chamber.	Nos.	QRO		
4.9	Providing and fixing cast iron manhole frame and cover , light / medium / heavy weight, of circular / rectangular dimensions, including carting to site of work, fixing in C.C (1:2:4) and finishing with 3 coats of anti-corrosive paint, etc. complete as directed by E-I-C	Nos.	12.00		-
4.10	Constructing Drop connections of the required size, between branch sewer and main sewer or in the main sewer itself, in step ground, when the difference in the invert level of two, exceeds 45 cm.	Nos.	QRO		
4.11	Extra over and above item no. 4.10 beyond 0.45 m. depth, for every additional depth of 0.1 m. or part thereof, for drop connection.	Nos.	QRO		
4.12	Supply, Installaion, Testing & commissioning of CI heavy duty steps in manhole, water tank, septic tank, sumps, etc., of size 500 mm. x 150 mm. x 22.5 mm, including cutting, chasing the RCC / Brickwork and making good the same complete as required and painting with 3 coats of anti-corrosive paint, etc.	Nos.	60.00		-
4.13	Supply, Installaion, Testing & commissioning of NP 3 class RCC pipes (IS 458) with mortise - tenon, jointed with cement and with RCC collar to cover and overlap the joints laid to correct levels below ground in trenches upto required depth including excavation in all kind of soil (including hard rock), dewatering, refilling, watering, ramming and removing the surplus excavated material, dumping it on site or carting away to lead of 100 meters as directed and making good the same complete as required. Price to include 150 mm thick PCC (1:4:8) haunches upto centre at the joints to cover the collar and 150 mm on bothsides and 400 mm wide cradles for intermediate supports at maximum 1 meter centre to centre in brick masonry (duly plastered 1:5 CM) on 100 mm thick PCC 1:4:8 over 230 mm rubble soling. The pipes shall be of following nominal bore (NB) size:				
4.13.1	230 mm NP3 class RCC pipe.	Rmt	50.00		-
4.13.2	200 mm NP3 class RCC pipe.	Rmt	300.00		-
4.13.3	150 mm NP3 class RCC pipe.	Rmt	70.00		-
4.13.4	100 mm NP3 class RCC pipe.	Rmt	QRO		

Item No.	Description of Work	Unit	Total Quantity	With Material	
				Rate in Rs.	Amount in Rs.
4.14	Constructing / readymade channel of internal dimensions as specified below, for rain water , with 10 cm. thick PCC 1:4:8, with 23 cm. thick brick masonry in CM 1:5, inside plastering 12 mm thick with cement mortar 1: 3 and rough plaster 20 mm thick on outside with a floating coat of neat cement slurry, including excavation in all kind of soil (including hard rock), dewatering, refilling, watering, ramming and removing the surplus excavated material dumping it on site or carting away to lead of 100 meters as directed and making good the same complete as required.				
4.14.1	600 mm internal size with 600 mm avg depth.	Rmt	QRO		
4.14.2	450 mm internal size with 450 mm avg depth.	Rmt	15.00		-
4.14.3	300 mm internal size with 300 mm avg depth.	Rmt	110.00		-
4.15	Constructing Oil & Grease Trap with bucket strainer as per drawing comprising of chambers (Size :- LD+FB as per IL As per Drawing) , internal size of required depth in RCC / brick work (As per structural consultant) of class designation 75 with cement mortar. Inside plastering 12mm thick with cement mortar 1:3 and rough plaster on outside with floating coat of neat cement detail as per drawing) 1:5 (one cement,5 fine sand). Including SS bucket as per detail to collect the grease. RCC top slab with 600x600 CI covers (As per structural consultant), necessary foundation in concrete(1:4:8). And necessary excavation, dewatering, refilling, watering, ramming and removing the surplus excavated material and shifting within the site limit as directed by site incharge and making good the same etc complete as required.(Civil works to be done by contractor as per the structural drawings).	Nos.	QRO		
4.16	Constructing of Desilting Chamber (Size :- LD + FB As per Drawing) in RCC / brick work of class designation 75 with cement mortar. Inside plastering 12mm thick with cement mortar 1:3 and rough plaster on outside with floating coat of neat cement mortar in 1:4 (one cement,4 fine sand) Detail as per drawing. Including aluminium bucket as per detail to collect the grease. RCC top slab with 600x600 CI covers (As per drawing), necessary foundation in concrete(1:4:8). And necessary excavation, dewatering, refilling, watering, ramming and removing the surplus excavated material and shifting within the site limit as directed by site incharge and making good the same complete as required.(Civil works to be done by civil contractor as per the structural and plumbing drawings).	Nos.	QRO		
4.17	Supply, Instalation, Testing & commissioning of online Rainy filter to clean rain water coming from terrace by down take lines, Rainy filter designed with self cleaning mechanism and can be fixed to the wall by connecting Rooftop rainwater drain pipes. The rainwater along with dirt particles enters into the inlet of filter through the hollow pipe tangentially to the filter housing and rotating slowly along the periphery of upper housing so as to flow into the SS 304 filter element placed in lower housing of the filter unit in angular motion at specific velocity, which shall creates cohesive force and segregates dirt particles and clean water individually. the working principle of the filter based on cohesive and centrifugal force respectively, aids the filter element to divert clean water into the catch basin and simultaneously flushes out automatically sand, debris, and dirt particles through the drain outlet,Scope also includes by pass valve, Fixing accessories, Breakets, Strainer, Housing material Transportation / Loading / Unloading / Forwading / Packing / Any other cost etc complete as required.				-
4.17.1	Capacity of Filter - 90 LPM, Inlet size - 110 mm, Clear water outlet & drain size -To be Specified by Vendor	Nos.	QRO		
4.17.2	Capacity of Filter - 250 LPM, Inlet size - 110 mm, Clear water outlet & drain size -To be Specified by Vendor	Nos.	QRO		
EXTERNAL DRAINAGE SUB TOTAL OF SECTION-4					-

MIT WPU Campus at Goa				
Make and Material List of plumbing Work			AD25122_13-01-2026	
Item no.	Description of Work	Material	Makes	Client / Contractor's Consideration
1	Ball valve	Heavy gun metal / Cast bronze / Brass	Zoloto / Sant / Lehy / Audco / Normex or equivalent	
2	Butterfly valve	Heavy gun metal / Cast bronze / Brass	Zoloto / Sant / Lehy / Audco / Normex or equivalent	
3	Air Release valve	Heavy gun metal / Cast bronze / Brass	Zoloto / Sant / Lehy / Audco / Normex or equivalent	
4	Non Return Valve	Heavy gun metal / Cast bronze / Brass	Zoloto / Sant / Lehy / Audco / Normex or equivalent	
5	Pressure Reducing valve	Heavy gun metal / Cast bronze / Brass	Zoloto / Sant / Lehy / Audco / Normex or equivalent	
6	Foot valve	Brass Heavy duty	Zoloto / Sant / Lehy / Audco / Normex or equivalent	
7	G.M. Float valve	Copper ball float heavy duty	Prayag / R.B / Atam / Lehy or equivalent	
8	Solenoid valve	Heavy gun metal / Cast bronze / Brass	Aveon/ Danfoss / Airmex / Aira or equivalent	
9	Strainer	Heavy gun metal / Brass	Audco / RB / Intervolve / Zoloto / Normex or equivalent	
10	O.H.W.T Water Tank (Minimum 4 layer)	PVC / HDPE / Poly Propelyn	Sintex / Kaka / Astral / Plasto / Sheetal / Rhino Tanks or equivalent	
11	Pipe Supports, Hangers	GI / SS / MS	Hilti / Mupro / Shaivi / Fischer / Intello Tech / G.M.G.R or equivalent	
12	Air Admittance Valve	Engineering Plastics such as PVC / Polypropylene / polyethylene	Capricom / Studor or equivalent	
13	Internal Cold water supply (Domestic, Flushing & RO Water)	Pex / CPVC (SDR-13.5)	For Pex : Kitec / Viega / Goerge fisher / Thermaflex / Geberit Nuev tairran / Cosmoplast or equivalent For CPVC : Astral / Ashirvad /Supreme / Finolex / Prince / Truflo by hindware or equivalent	
14	Internal Cold water supply (RO Water)	Pex	For Pex : Kitec / Viega / Goerge fisher / Thermaflex / Geberit Nuev tairran / Cosmoplast or equivalent	
15	External Cold Water Supply (in shaft / Terrace - Domestic & Flushing Water)	CPVC (SDR-11)	For CPVC : Astral / Ashirvad /Supreme / Finolex / Prince / Truflo by hindware or equivalent	
16	External Cold Water Supply (in shaft / Terrace - RO Water)	Pex	For Pex : Kitec / Viega / Goerge fisher / Thermaflex / Geberit Nuev tairran / Cosmoplast or equivalent	
17	Insulation for all water supply pipes (External / Internal / Open / Concealed)	Nitrile Rubber 9mm for Internal pipes and 19mm thickness for External pipe	Armacell / Thermaflex / Armaflex / Kiflex / Vidoflex / Superlon or equivalent	
18	Internal Drainage (Inside Toilet & Shafts)	PP Lownoise / Cast Iron (Hubless)	For PP Low Noise - Astral silensio / Supreme skyrise / Huliot or equivalent For C.I : Neco / Kapilansh / SKF or equivalent	
19	Internal Rain water (Inside Shafts / Basement)	PVC 6 kg / cm ²	For PVC : Finolex / Supreme / Astral / Prince or equivalent	
20	External Drainage (Underground)	Foam Core uPVC Foam Core uPVC / R.C.C Hume pipe NP3	For Upvc Foam Core: Astral / Supreme / Ashirvad or equivalent For R.C.C: Alcock / Local or equivalent	
21	Gully Trap	Stoneware glazed / Foam Core uPVC with load bearing capacity	For Stoneware : First class / RPI or local ISI Marked or equivalent For Upvc Foam Core: Astral / Supreme / Ashirvad or equivalent	
22	Manhole Cover/Grating	FRP / SFRC / F.R.C./R.C.C(Heavy Duty) / Ductile Iron (DI)	FibroCast / Neco / Alcock / K.K.Manhole / Jainspun / Pragati / Thermo drain or equivalent	
23	External Strom/Rain water	Foam Core uPVC Foam Core uPVC / R.C.C Hume pipe NP3	For Upvc Foam Core: Astral / Supreme / Ashirvad or equivalent For : R.C.C Alcock / Local or equivalent	
24	Garden Water supply	HDPE PE80 PN6 / uPVC SH80	For HDPE : Dutron / Arvind / Reliance / Time Techno / Geberit or equivalent For uPVC : Astral / Ashirvad /Supreme / Finolex / Prince / Truflo by hindware / Jain Irrigation or equivalent	
25	External Water supply	HDPE PE80 PN6 / uPVC SH80	For : HDPE Dutron / Arvind / Reliance / Time Techno / Geberit or equivalent For uPVC : Astral / Ashirvad /Supreme / Finolex / Prince / Truflo by hindware or equivalent	
26	Water / Flow meter		Sant / Voltman / Kranti / Lehy / Atam or equivalent	
27	Rainy Filter		Rainy Filter / Furrat / Supreme Rainy Filter / Neer Rain or equivalent	

Note :

1) We do not recommend PVC Material for under ground plumbing works, since PVC is likely to attack by rats.

2) Kindly Ensure Pressure Rating / Class / Schedule should be as per Plumbing work BOQ.