



**CONSTRUCTION OF GROUND AND FIRST FLOOR VIROLOGY AND UTILITY BUILDINGS
HEJ RESEARCH INSTITUTE OF CHEMISTRY, UNIVERSITY OF KARACHI(Non Schedule)**

(PLUMBING WORKS)					
S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	PLUMBING WORKS				
	All items under this head to be carried out as per specifications, Drawings and relevant BSI/ASTM Standards to the entire satisfaction of the Engineer.				
	WATER SUPPLY:				
1	COLD/HOT WATER PIPING:				
a	Supply, installation Testing and Commissioning of PPR PN - 20 Cold/Hot water pipes as per DIN 8077-8078 with molded fittings PN - 25 as per DIN 16962, including pipe supports as indicated on the drawing, as per specifications and Engineers approval.				
(i)	20mm dia.	Rft	300		
(ii)	25mm dia.	Rft	160		
(iii)	32mm dia.	Rft	20		
(iv)	38mm dia.	Rft	160		
(v)	50mm dia.	Rft	40		
2	ISOLATION/GATE VALVE:				
	Providing and fixing of brass (PPR coated) ball valves as indicated on the drawing and as specified in specifications				
(i)	20mm dia.	Nos.	8		
(ii)	25mm dia.	Nos.	4		
(iii)	32mm dia.	Nos.	1		
(iv)	38mm dia.	Nos.	2		
(v)	50mm dia.	Nos.	2		
3	Water Geyser				
	Supply and installation of Gas fired hot water geyser with below mentioned capacity including, 2 nos ball valves for piping, accessories, etc., complete all in accordance with the drawing and specifications.				
1	30 Gallons capacity	Nos	2		
4	2 STAGE UV FILTERS				
	Supply and installation of Two stage UV filter of minimum 0.8 GPM flow for Kitchen Pantry with valves, piping, accessories, etc., as indicated on the drawing, as per specifications and Engineers approval.	Nos	2		
5	WATER TANK:				
	Connection from external network to RCC water tanks including fittings, float valves, vent pipes, accessories, valves, supports, warning pipes, low and high level float switches, etc. as per specifications	Job	1		
Sub Total for Water Supply					



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S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
6	SOIL SANITARY WASTE AND VENT & RW PIPES:				
1	SOIL, WASTE & VENT SYSTEM:				
a	Providing, fixing, Testing and commissioning of uPVC pipes Class 'B' Pipes and fittings as per BS 4660 for above ground installations for Soil, Waste, Vent & Rw pipes including cleanout plug, clamps, hanger collars, supports, specials (bend, tees, Y-tee etc.) as indicated on the drawing, as per specifications and Engineers approval.				
(i)	50mm dia.	Mtr.	180		
(ii)	75mm dia.	Mtr.	40		
(iii)	100mm dia.	Mtr.	250		
2	Providing, fixing, Testing and commissioning of uPVC pipes and fittings as per EN 1401 for below grade installations for Soil, Waste, Vent & Rw pipes including cleanout plug, clamps, hanger collars, supports, specials (bend, tees, Y-tee etc.) as indicated on the drawing, as per specifications and Engineers approval.				
(i)	150mm dia.	Mtr.	20		
	DRAINAGE SPECIALTIES				
3	Providing and fixing of PVC floor Trap/floor drain with multiple inlets and 75mm dia outlet with S.S grating the approved design as per specifications	Nos	2		
7	MANHOLES AND GULLY TRAPS / GREASE				
(i)	Sewer Manhole	Nos.	4		
(ii)	750mm x 750mm Greece trap	Nos.	1		
(iii)	300mm x 300mm Gully trap	Nos.	6		
Sub Total for Drainage System					



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S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
9	PLUMBING FIXTURES:				
c	Providing and fixing wash basin by Porta with mixer by Sonex/Master, two (2) nos. Stop cocks with Flexible Connection , flexible drain pipe to floor drain as per drawings , specifications and engineers approval.	Nos.	12		
Sub Total for Fixtures					
10	NATURAL GAS				
	GAS PIPING				
1	Providing and fixing of G.I (Medium) pipe and fitting by ILL, conforming to and approved by Local Gas Company standards to correct Lines, Levels and Grade, coating and wrapping including fixing and laying, fitting, valve, flanges, reducers, tees, sockets, bends, clamps, support, excavation works complete with testing and as per drawings, specifications and requirements of local gas company complete in all respects.				
(i)	12mm dia.	Rft	250		
(ii)	20mm dia.	Rft	120		
b)	Making service connection with existing Gas Company mains with necessary approval and directions by the Local Gas Company.	Nos.	1		
d)	Providing and fixing brass ball valve with unsoldered copper ball conforming to API standards and approved by Local Gas Company.				
(i)	12mm dia.	Nos.	4		
(ii)	20mm dia.	Nos.	4		
Sub Total for Gas Works					



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S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
11	FIRE PROTECTION SPECIALTIES:				
	FIRE SUPPRESSION PIPING, VALVES AND ACESSORIES				
a)	Fire Hose cabinet made of M.S sheet by SRI or Equivalent front glass fitted with lock and handle red color power coating size along with following equipment.				
(i)	25mm diameter 1X30m high pressure rubber hose reel tested on 30 bar with PRV (Pressure Reducing valve)				
(ii)	Painted with electrostatic power paint oven baked to protect against rust and to give smooth finishing.	Nos.	2		
(iii)	Adjustable plastic Nozzle for Jet spray	Nos.	2		
(iv)	Brass gate valve 25mm.	Nos.	2		
b)	Supply & installation of seamless galvanized 40 black steel pipe				
(iv)	75mm" dia.	Mtr	65		
12	FIRE PUMP				
b)	NFPA 20 compliance Vertical Turbine type Fire pump set comprising of 1 main electric pump (duty) + 1 Diesel Engine Pump (Stand by) + jockey pump + pressure vessel with Following Capacities Main pump duty = 500 GPM at 300 ft head (approx.) Duty pump duty = 500 GPM at 300 ft head (approx.) Jockey pump duty = 50 GPM at 310 ft head (approx.) Pressure vessel = 200 lit Fuel Tank = 100 lit (as recommended by manufacturer) Valves and fitting from Suction to Discharge header, Including all wiring, controls, etc., complete all in accordance with the drawings and specifications.	Nos.	1		
13	FIRE SPECIALITIES				
c)	6 Kg CO2 wall mounted fire extinguisher.	Nos.	15		
d)	6 Kg Dry powder wall mounted fire extinguisher.	Nos.	15		
e)	Flow switch for test pipe	Nos.	2		
f)	Pressure Gauge	Nos.	1		
g)	Automatic Air Vent to be installed on top of each Riser	Nos.	1		
	VALVES				
h)	Supply, installation, testing and commissioning of O.S and Y type gate valves of below mentioned diameter as indicated on the drawings, as per specifications and engineers Estimate				
(i)	32mm dia.	Nos.	1		
(ii)	37mm dia.	Nos.	1		
(iii)	75mm dia.	Nos.	6		
Sub Total for Fire Protection System				TOTAL	
	OVER HEAD FIBER TANK				
1	supply and fixing Water Tank made of fiber glass capacity 1800 liter.	Nos.	1		
				TOTAL	