



**CONSTRUCTION OF GROUND AND FIRST FLOOR LABORTORY BUILDINGS,
HEJ RESEARCH INSTITUTE OF CHEMISTRY,
INTERNATIONAL CENTER FOR CHEMICAL & BIOLOGICAL SCIENCES-ICCBS
UNIVERSITY OF KARACHI (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 a as indicated on the drawing, as per specifications and Engineers approval.				
(i)	20mm dia.	Rft	1880		
(ii)	25mm dia.	Rft	580		
(iii)	32mm dia.	Rft	20		
(iv)	38mm dia.	Rft	270		
(v)	50mm dia.	Rft	120		
(vi)	63mm dia.	Rft	60		
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.	45		
(ii)	25mm dia.	Nos.	4		
(iii)	32mm dia.	Nos.	1		
(iv)	38mm dia.	Nos.	4		
(v)	50mm dia.	Nos.	4		



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S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
3	Water Geyser				
	Supply and installation of Gas fired hot water geyser with below mentioned capacity including, 2 nos bass ball valves for piping, accessories, etc., complete all in accordance with the drawing and specifications.				
1	30 Gallons capacity	Nos	6		
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		
Sub Total for Water Supply					
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.	250		
(ii)	75mm dia.	Mtr.	190		
(iii)	100mm dia.	Mtr.	230		
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.	470		



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S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	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	22		
4	Providing and fixing UPVC cowl for vent pipe of the following dia including all accessories complete in all respects.				
(i)	75mm dia.	Nos.	12		
(ii)	100mm dia.	Nos.	12		
7	MANHOLES AND GULLY TRAPS / GREASE				
(i)	Sewer Manhole	Nos.	12		
(ii)	750mm x 750mm Greece trap	Nos.	1		
(iii)	300mm x 300mm Gully trap	Nos.	15		
Sub Total for Drainage System					



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S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
9	PLUMBING FIXTURES:				
a	Providing and fixing first quality European type water closet by Porta model HD 9N or Equivalent with 6 liters flush tank, build in S-Trap, Stop cock with flexible pipe as per drawings, specifications and Engineers Approval.	Nos.	13		
b	Providing and fixing first quality Eastern water closet by Porta model HD-16 with 6 liters flush tank, S-Trap, stop cock and flexible pipe as per drawings, specifications and Engineers Approval.	Nos.	2		
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.	36		
d	Providing and fixing of kitchen Sink by Porta with waste trap, bib cock, Stop cocks, Flexible Connection as per drawings, specifications and engineers approval.	Nos.	1		
e	Providing and fixing of Shower head by Sonex/Master with shower mixer and angle valves as per architectural fixture selection, complete in all respect.	Nos.	5		
f	Providing and fixing bath toilet accessories as under by Sonex or Equivalent:				
(i)	Toilet Paper Holder	Nos.	12		
(ii)	Soap Dish / Glass shelf	Nos.	4		
(iii)	Mirror full size (Beveled edge type) as shown on the architectural drawing (5mm thick glass with backing of hardboard) posted with silicon with necessary clips as required. Complete in all respects.	Nos.	8		
(iv)	Double Bib Cock with Hand Spray / Muslim shower	Nos.	15		
Sub Total for Fixtures					



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S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
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.	12		
(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				
(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.	4		
(iii)	Adjustable plastic Nozzle for Jet spray	Nos.	4		
(iv)	Brass gate valve 25mm.	Nos.	4		
b)	Supply & installation of seamless galvanized 40 black steel pipe work including all fittings, supports, hangers, painting of fire protection system of following sizes.				
(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		
h)	Fire Blanket	Nos.	6		
i)	Fire Shower / Fire eye Wash	Nos.	6		
	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					



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S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
14	WATER TRANSFER PUMP				
	Supply and installation of Pumps including control panel, wiring, valves, piping, accessories etc. from suction to discharge header, complete all in accordance with the drawing and specifications.				
1	Water Transfer Pump set (duty) Pump Flow = 125 GPM @ 95 Ft head	Nos.	1		
2	Water Transfer Pump set (standby) Pump Flow = 125 GPM @ 95 Ft head	Nos.	1		
Sub Total for Water Transfer Pump					
	OVER HEAD FIBER TANK				
a)	supply and fixing Water Tank made of fiber glass capacity 1800 liter for fire hyderants	Nos.	2		
b)	Supply and fixing Water Tank made of fiber glass capacity 2000 gallons.	Nos.	3		
Sub Total for Over Head Fiber Tank					