

**Construction of New Air traffic Control Tower (ATCT), Fire Station and Allied Facilities at Skardu
International Airport, Skardu**

Bill of Quantities

Bill No. 7 - Plumbing & Fire Fighting Works

Abstract of Cost

Item No	Description	Quantity	Unit	Rate (USD)	Rate (Rs)	Amount (Rs)
(1)	(2)	(3)	(4)	(5)	(6)	(7) = [(5)*280]+(6)]*(3)
P.1-1	Providing and fixing best quality white glazed earthenware One Piece Toilet Commode MS-New Avante Wall Hung WC (For Seat & Cover Tc281sj#W) (White) i/c the cost of MS-Dual Push Plate (Square Button) (Silver) , MS-Concealed Tank Half Frame and MS-AP Series - Seat & Cover (Soft Closing Model) complete with and internal fittings etc complete in all respects as per drawings and design approved by the Architect and Engineer-in-Charge. REF: Technical Specifications Section - 0360	22.00	Nos	Not Applicable		
P.1-2	Cutting of R.C.C slab via core cutter of suitable diameter by using proper technique and equipment for the crossing of utility pipes and its waterproof refilling with useful materials complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0360	75.00	Nos	Not Applicable		
P.1-3	Providing & fixing best quality earthenware Vanity Basin MS-Square Under Counter (520 X 345 Mm) W/Bracket Tsp0225w (White) and including the cost of ME - Wall Mounted Single Lever Basin Mixer (Chrome) , 1 1/4" rubber plug and chrome plated brass chain pvc waste pipe 1-1/4" dia of approved pattern etc complete in all respects as per drawings and design approved by the Architect and Engineer-in-Charge. REF: Technical Specifications Section - 0360	16.00	Nos	Not Applicable		
P.1-4	Providing and fixing kitchen sink with mixer, waste coupling and tee stop cock including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0360	1.00	Nos	Not Applicable		
P.1-5	Providing and fixing chromium plated toilet paper holder including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0360	22.00	Nos	Not Applicable		
P.1-6	Providing and fixing looking glass 5mm thick first quality complete with fixing clamps including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0360	102.00	Sft	Not Applicable		
P.1-7	Providing and fixing of Wall Mounted Shower Set Complete MS-Round Wall Mounted Overhead Shower (220 Mm Dia) (Chrome) i/c the cost of MS-ME - Bath Spout (Chrome) and MS-ME - Concealed Single Lever Bath Mixer (Chrome) etc complete in all respects as per drawings and design approved by the Architect and Engineer-in-Charge. REF: Technical Specifications Section - 0360	18.00	Nos	Not Applicable		

P.1-8	Providing and fixing soap dish including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0360	14.00	Nos	Not Applicable		
P.1-9	Providing and fixing towel rod including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0360	14.00	Nos	Not Applicable		
P.1-10	Providing and fixing tap 3/4 inch dia including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0360	8.00	Nos	Not Applicable		
P.2-1	Providing, fixing, jointing and testing Polypropylene Random (PPR) PN20 pressure pipe for cold, hot and hot water return water as per DIN 8077-8078 for pipes and DIN 16962, PN25 for fittings (polyfusion welded joints) inside building including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe hangers, supports, walls cutting for pipelines, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0360, Section - 0480					
P.2-1-1	25 mm dia. REF: Technical Specifications Section - 0360	1,020.00	Rft.	Not Applicable		
P.2-1-2	32 mm dia. REF: Technical Specifications Section - 0360	750.00	Rft.	Not Applicable		
P.2-1-3	40 mm dia. REF: Technical Specifications Section - 0360	285.00	Rft.	Not Applicable		
P.2-1-4	50 mm dia. REF: Technical Specifications Section - 0360	320.00	Rft.	Not Applicable		
P.2-1-5	75 mm dia. REF: Technical Specifications Section - 0360	365.00	Rft.	Not Applicable		
P.2-2	Providing, fixing, jointing and testing medium gauge G.I pipes including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe clamps, pipe hangers, supports, walls cutting and core cutter for cutting of concrete slab with sealing and waterproofing with epoxy grouting for pipelines, thermal insulation with glasswool insulation 65kg/ m ³ density thickness 19 mm, GI 26 gauge cladding, complete in all respects. REF: Technical Specifications Section - 0360, Section - 0480					
P.2-2-1	2 inch dia. REF: Technical Specifications Section - 0360	80.00	Rft.	Not Applicable		
P.2-2-2	2-1/2 inch dia. REF: Technical Specifications Section - 0360	50.00	Rft.	Not Applicable		
P.2-3	Providing and installing gate/ball valves of following nominal dia, of approved make ,including jointing ,fitting, painting, testing, complete in all respects to match with following G.I pipe diameters. REF: Technical Specifications Section - 0440, Section - 0480					
P.2-3-1	2 inch dia. REF: Technical Specifications Section - 0360	4.00	Nos.	Not Applicable		
P.2-3-2	2-1/2 inch dia. REF: Technical Specifications Section - 0360	2.00	Nos.	Not Applicable		

P.3-1	Providing, fixing, jointing and testing uPVC Class-B pipe including all fittings such as tees, bends and reducers. Also it includes the cost of joint solutions & clamping to walls, ceiling hangers, supports, cutting through walls for pipelines and pipe fittings of the following diameters, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0430, Section - 0480-0360					
P.3-1-1	2" dia. REF: Technical Specifications Section - 0360	152.00	Rft.	Not Applicable		
P.3-1-2	4" dia. REF: Technical Specifications Section - 0360	1,450.00	Rft.	Not Applicable		
P.3-1-3	6" dia. REF: Technical Specifications Section - 0360	520.00	Rft.	Not Applicable		
P.3-1-4	8" dia. REF: Technical Specifications Section - 0360	823.00	Rft.	Not Applicable		
P.3-2	Providing and fixing 4" dia Floor Drain with P-trap including Stainless Steel grating and cover of approved make including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0360					
P.3-2-1	P-Trap. REF: Technical Specifications Section - 0360	53.00	Nos.	Not Applicable		
P.4-1	Providing, placing sleeves and puddle flange in R.C.C. underground water tank walls, pipe connection (G.I) with inlet / outlet pipe work, manhole covers, floating ball valve etc, including all necessary accessories required for sleeves placing, complete in all respects. REF: Technical Specifications Section - 0450, Section - 0150, Section - 0145, Section - 0460, Section - 0440	1.00	Job	Not Applicable		
P.4-2	Providing, placing sleeves and puddle flange in R.C.C. overhead water tank walls, pipe connection (G.I) with inlet / outlet pipe work, manhole covers, floating ball valve etc, including all necessary accessories required for sleeves placing, complete in all respects. REF: Technical Specifications Section - 0450, Section - 0150, Section - 0145, Section - 0460, Section - 0440- 0360	2.00	Job	Not Applicable		
P.4-3	Providing, installing, testing and commission electric geyser of approved make, complete with inlet, outlet, safety valves complete in all respects. REF: Technical Specifications Section - 0440, Section - 0480					
P.4-3-1	30 Litres. REF: Technical Specifications Section - 0360	8.00	Nos.	Not Applicable		
P.5-1	Providing, installing, testing and commission, centrifugal pumps of make KSB, Grundfos or approved equivalent of capacity 100 gpm each with stainless steel impeller capable of pumping against a total pumping head of 120 ft approx. 5 HP. coupled with water cooled electric motor of 440 volts, 3 - phase, 50 Hz. The pump shall be provided with control panel having auto / manual switches, dry running protection, low / high level water controls with alternative standby duty operation system, complete in all respects. REF: Technical Specifications Section - 0470, Section - 0480	2.00	Nos	Not Applicable		
P.5-2	Supply and install Tube Well Bore Pump complete with the pump and motor cut-out switches for control panel enclosure, valves, water hammer arrestors and all accessories ready for operation.WTP 01 A/01B : Each 0.5 Cusec ,Head 300 feet approx. 17 HP. as per the Drawings, Specifications and Standards. REF: Technical Specifications Section - 0440, Section - 0470	2.00	Nos	Not Applicable		

P.5-3	Providing, installing, test and commission non-clogging, centrifugal submersible drainage sump pump 50 gpm against a total pumping head of 25 ft (one running one standby). coupled with water cooled IP Class 68 electric motor of 400 volts, 3 - phase, 50 Hz. of approved make with auto / manual switches, dry running protection, low / high level water controls with alternative standby duty operation system), complete in all respects. REF: Technical Specifications Section - 0470	2.00	Set	Not Applicable		
P.6-1	Providing and fixing Mild Steel Schedule 40 Seamless Pipes including all fittings such as tees, bends and reducers with cost of Painting, clamping to walls and ceiling hangers, supports, cutting through walls and concrete in slabs with core cutter for pipelines and pipe fittings of the following diameters complete in all respect. REF: Technical Specifications Section - 0360					
P.6-1-1	1" dia (25mm) REF: Technical Specifications Section - 0360	4,100.00	Rft.	Not Applicable		
P.6-1-1	1-1/2" dia (40mm) REF: Technical Specifications Section - 0360	1,810.00	Rft.	Not Applicable		
P.6-1-1	2" dia (50mm) REF: Technical Specifications Section - 0360	620.00	Rft.	Not Applicable		
P.6-1-1	2-1/2" dia (63mm) REF: Technical Specifications Section - 0360	1,415.00	Rft.	Not Applicable		
P.6-1-1	3" dia (75mm) REF: Technical Specifications Section - 0360	535.00	Rft.	Not Applicable		
P.6-1-1	4" dia (100mm) REF: Technical Specifications Section - 0360	920.00	Rft.	Not Applicable		
P.6-1-1	6" dia (150mm) REF: Technical Specifications Section - 0360	275.00	Rft.	Not Applicable		
P.6-2	Excavation in all kind of soils at any depth i/c all lead & lift, necessary protection/shoring/ stability to excavated areas/sides, dewatering and keeping the area to dry, all operations & arrangements in connection with earth works to complete conforming to the requirements of drawings, specifications and instructions by the Engineer In Charge. REF: Technical Specifications Section - 0360- 0400	22,500.00	Cft	Not Applicable		
P.6-3	Sand Filling: Providing, laying, compacting and curing sand, compaction, complete in all respect, as per drawings, specifications and as directed by the Engineer. REF: Technical Specifications Section - 0360	7,500.00	Cft	Not Applicable		
P.6-4	Providing, transportation, laying, cutting, butt fusion jointing, testing, commissioning & disinfecting the Polyethylene Pipe (PE-100), PN 16, of SDR 11 of any of the manufacturer DADDEX and BETA or approved equivalent including fixing all type of fittings and special such as tee, bend, cross collar, reducer, tail piece, flanged spigot, end cap, flanged socket, taper, angle branch, plug etc complete in all respects (Including Injection moulded fittings) as recommended by the manufacturer. REF: Technical Specifications Section - 0400, Section - 0480					
P.6-4-1	6" dia (150mm) REF: Technical Specifications Section - 0360	3,000.00	Rft.	Not Applicable		
P.6-5	Providing and installing gate/ball valves of following nominal dia, of approved make, including jointing, fitting, painting, testing, complete in all respects to match with following pipe dia meters. REF: Technical Specifications Section - 0440, Section - 0480					
P.6-5-1	2-1/2" dia (63mm) REF: Technical Specifications Section - 0360	8.00	Nos.	Not Applicable		

P.6-6	Providing, Installing and testing (sprinklers) (K 5.6) including jointing, fitting, testing, including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0380, Section - 0420, Section - 0480					
P.6-6-1	Ceiling type (Concealed) REF: Technical Specifications Section - 0360	325.00	Nos.	Not Applicable		
P.6-6-2	Upright. REF: Technical Specifications Section - 0360	80.00	Nos.	Not Applicable		
P.6-7	Providing, Installing, testing and commissioning fire hose cabinet Single door, complete mild steel front door. UPPER COMPARTMENT Fire hose reel, 1" X 30 Mtr. cabinet mounted, swinging manual type with nozzle & valve. LOWER COMPARTMENT 2-1/2" x 30 Mtr. fire hose synthetic single jacket with quick coupling, 2-1/2" oblique landing valve, with jet & spray Nozzle including Co2 fire extinguisher, portable pressure type 6kg dry powder type fire extinguisher where indicated on drawings including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0380, Section - 0420, Section - 0480	8.00	Nos.	Not Applicable		
P.6-8	HOSE REEL CABINET(External): Providing, Installing, testing and commissioning fire hose cabinet Single door, complete mild steel front door. Fire hose reel, 1" X 30 Mtr. cabinet mounted, swinging manual type with nozzle & valve. where indicated on drawings including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0380, Section - 0420, Section - 0480	28.00	Nos.	Not Applicable		
P.6-9	Providing, Installing, testing and commissioning Pillar type fire hydrants with external fire hose cabinet with inlet flange 4" size with double deliveries 2 1/2" female instantaneous coupling with blank cap and chain, including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0360, Section - 0380, Section - 0420, Section - 0480	28.00	Nos.	Not Applicable		
P.6-10	Providing, Installing, testing and commissioning Pillar type fire hydrants with external fire hose cabinet with inlet flange 4" size with double deliveries 2 1/2" female instantaneous coupling with blank cap and chain, including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0380, Section - 0420, Section - 0480	2.00	Nos.	Not Applicable		

P.6-11	Providing, Installing, testing and commissioning fire fighting zone check assembly & drain test point consisting of Alarm valve, Gate valve, Flow switch, etc complete, at suitable locations as required by NFPA codes for Fire fighting sprinkler - wet pipe system including fire alarm panel, jointing, fitting, testing, including all necessary accessories required for installation, complete in all respect as per specifications and drawings as well as directed by the Engineer. REF: Technical Specifications Section - 0380, Section - 0420, Section - 0480-0360					
P.6-11-1	4" dia (100 mm) REF: Technical Specifications Section - 0360	5.00	Nos.	Not Applicable		
P.6-12	FM-200 System: Design, Supply, installation, testing & commissioning of FM-200 system of specified spaces mentioned on drawings. REF: Technical Specifications Section - 0700, Section - 0480	1.00	Job	[Up to 80% Allowed]		
P.6-13-1	Dry Chemical Powder Fire Extinguisher: Portable, Stored Pressure Type Highly Effective on A, B, C & E Class of Fire, Capacity : 06 Kg Fire Rating : 34A 183B Working Pressure : 14 Bar Tested at Pressure : 30 Bar. REF: Technical Specifications Section - 0380	24.00	Nos.	Not Applicable		
P.6-13-2	CO2 Fire Extinguisher Capacity 5Kg Extinguishing Agent CO2 Operating Temperature -20 to +60 °C Max Allowable Pressure 174 bar Test Pressure 250 bar. REF: Technical Specifications Section - 0380	24.00	Nos.	Not Applicable		
P.6-13-3	ABC Powder Ceiling Mounted Capacity 6Kg Operating Temperature -30 °C to +60 °C Operating Pressure 15 Bar Cylinder Testing Pressure 35 bar for 30 sec. REF: Technical Specifications Section - 0480	3.00	Nos.	Not Applicable		
P.7-1	Providing, Fixing ,testing & installing pump set for fire fighting of following capacities. (Pump must be UL Listed & FM approved) a) Horizontal centrifugal pump set (50Hz x 380V, 3 phase Motor) 750 GPM @ 10 bar complete with automatic control panel , Pressure switch & Pressure gauge. It should be capable of operating 1 remotest 21/2" hydrants 250 GPM @ min. 6.9 bar pressure. b) Horizontal centrifugal engine driven pumpset 500 GPM @ 10 bar complete with automatic control panel , Pressure switch, Pressure gauge & diesel tank. It should be capable of operating 1 remotest 21/2" hydrants 250 GPM @ min. 6.9 bar pressure. c) Jockey electric motor driven pumpset (50Hz x 380 V ,3Ph Motor) 40 GPM @ 10.5 bar complete with automatic control panel, pressure switch and pressure gauge. d) Pump control cabinet for above mentioned pump. e) Pump room fitting and controls i.e. gate valves, NRV, expansion joints,air release valve, headers, pressure relief Valve & pressure gauge, supports and painting. REF: Technical Specifications Section - 0360, Section - 0380, Section - 0420, Section - 0440, Section - 0470, Section - 0480	1.00	Set	Not Applicable		
		Total Amount (Rs)				