

## SPECIFICATION FOR BUILDING WORKS

PROJECT : MIP PROJECT / TCF WORKS

No.	ITEM	DESCRIPTION	REMARK
<b>1.</b>	<b>GENERAL</b>		
1.1	Design	<p>Based on basic design provided by Contractor, Subcontractor shall be responsible for the detailed design and provide them for contractor approval.</p> <p>Finishing schedule for buildings shall be approved by contractor.</p> <p>All windows and exterior doors shall have 300mm wide canopy.</p> <p>Wet area shall be waterproofed and finished with adequate floor slope &amp; drains.</p> <p>Unit Design shall be developed and proposed by bidder as per Saudi Aramco Regulation and it shall be approved by Contractor</p>	
1.2	Construction	<p>Subcontractor shall obtain Contractor's &amp; Owner's permission before starting the works.</p> <p>Subcontractor shall observe and comply with the government's law, local regulation and client's specification.</p> <p>Subcontractor shall provide all labors, equipment and facilities to fabricate, transport and erect housing units.</p> <p>Necessary permit and approval from local government and committee prior to occupation shall be responsible for subcontractor.</p> <p>When Contractor require, any request, for change to the room arrangement during construction, Sub-contractor should fully coordinate with Contractor.</p>	
1.3	Docuement	<p>All of necessary Shop drawings for construction and As-built drawings shall be provided.</p> <p>Any documents such as Construction Execution Plan, Risk Assessment, Documented waste collection procedure &amp; Emergency Evacuation Procedure to be submitted to concerned authorities, shall be prepared by Sub-contractor.</p>	
<b>2.</b>	<b>BASE FRAME</b>		
2.1	I-Beam	<p>IPE 140 AA I-Beam Steel Chassis including Main Runner, End Rails &amp; Cross Members</p> <p>Lifting eyes are provided along the perimeter beams (Min. 2 Point at each side)</p> <p>"I" beams shall be brush cleaned, coated with red oxide and painted with alkyd based enamel paint from outside.</p>	
2.2	Foundation	The space between ground and base frame shall be blocked with steel wired mesh. <b>Lean concrete is to be provided.</b>	
<b>3.</b>	<b>FLOOR</b>		
3.1	Frame	<p>Galvanized metal Joists shall be mechanically fixed on top of base frame as per design.</p> <p>All the Galvanized light gauge cold formed steel sections having minimum yield strength of 346N/mm2 and galvanised coating of 275g/m2 and remain unpainted.</p>	
3.2.	Decking	18 mm cement fiberboard, fixed to the joists and steel frame	
3.3	Floor finish	<p>2mm thick PVC vinyl sheet fixed to cement fibreboard floor.</p> <p>Skirting (5cm high) with polished finish provided. (Dry area)</p> <p>Ceramic tile on cement fibreboard floor for wet area.</p> <p>Carpet tiles on cement board floor (Company &amp; Contractor Manager Office, Mosque)</p>	
<b>4.</b>	<b>WALLS</b>		
4.1	Frame	Galvanized metal Wall studs shall be mechanically fixed as per design.	
4.2	External Finish	Textured emulsion paint of Light beige color on 6mm Thk. Cement fiberboard.	
4.3	Insulation	100mm Thk. Glasswool with Vapor barrier. Thermal Conductivity shall be less than 0.035W/m-k.	
4.4	Internal Finish	<p>One coat primer and two coat washable Emulsion paint over 30 minutes Fire rated 16mm Thk. Gypsum board for Dry Area. Joints shall be covered with PVC joint strips.</p> <p>Ceramic tile on 6mm Thk. cement fibreboard wall up to 1.5m high for Wet area.</p>	
<b>5.</b>	<b>ROOF</b>		
5.1	Roof Covering	0.4mm Thk. Polyester powder coated Corrugated Metal roofing sheet of Light beige color shall be fixed on Galvanized Metal roof purlins.	
5.2	Truss	Galvanized Metal Steel truss as per design	

<b>6.</b>	<b>CEILING</b>		
6.1	Frame	Galvanized Metal Ceiling purlins as per design	
6.2	Ceiling Finish	Mineral fiber Ceiling Tile (600x600) for Dry Area  Enamel paint over Moisture resistant 12.5mm Thk. Gypsum board for Wet Area	
6.3	Insulation	100mm Thk. Glasswool with Vapor barrier. Thermal Conductivity shall be less than 0.035W/m-k.	
6.4	Clear Height	2700 mm	
<b>7.</b>	<b>DOORS &amp; WINDOWS</b>		
7.1	External Door	30min. Fire rated steel door with powder coated Frame. SS hinges, lever handle, lockset, cylinder, closer, panic bar, door stopper, weather strip shall be provided.	
7.2	Internal Door	Solid wooden door with wooden frame finished of 2-coats polyurethane base paint system. Private cylindrical locks, SS hinges, lever handle shall be provided.	
7.3	Toilet Door	Hollow core wooden door with wooden frame finished of 2-coats polyurethane base paint system.	
7.4	Windows	PVC frame, 6mm thick clear glass (Single glazing), Horizontal Sliding, polypropylene weather seal, Insect Screen, Blinds shall be provided.	
<b>8.</b>	<b>ELECTRICAL</b>		
8.1	Electrical Supply	single-phase 220V / or three phase 400V 50Hz as per Local Standard.	
8.2	Electrical Panel	Electrical Panel board shall be provided with ELCB incomer & MCB outgoings.  Circuits for small power outlets (13 Amp) shall be provided with single pole 30mAMP RCBO.  Internal DB shall be provided for each building.	
8.3	PVC Conduits	1.55mm, shall be concealed within the wall panels for wiring.	
8.4	Light fixtures	1 x 36W and 1 x 18 W fluorescent type fittings batten type for dry areas as per design. 1 x 36W and 1 x 18W fluorescent W/P fittings for wet areas as per design. 60W (W/P) bulkhead light for all external doors. Min. Interior Illumination : 500 LUX	
8.5	Switch / sockets	Switch / sockets 13A single / twin shall be BS standard.  Weatherproof type switch / sockets shall be provided for toilet, laundry room and wet area.	
<b>9.</b>	<b>COMMUNICATION</b>		
9.1	Telephone Access Point	PVC conduits, draw wires, Socket for Telephone Access shall be provided for Company Site Office, Contractor Site Office, HSE Office & Training Room, First Aid Center, Guard House, Training Center as per design.	
9.2	Internet Access Point	PVC conduits, draw wires, Socket for Internet Access shall be provided for Company Site Office, Contractor Site Office, HSE Office & Training Room, First Aid Center, Training Center, Auditorium as per design.	
9.3	Internal Patch Panel	Internal Patch panel which collect Television / Telephone / Internet Access / Fire detecting and alarm system lines shall be provided for each building in order to connect external lines.	
9.4	Fire Detecting & Alarm system	Smoke Detector, Alarm Bell, Manual Call Point shall be provided.	
<b>10.</b>	<b>HVAC</b>		
10.1	Air Conditioner	Foundation for condensor of split type A/C shall be provided. All A/C is Split Type with function of Hot & Cool  Power outlets (32A SP metal clad isolator wired with 1 C 6 Sqmm + ECC) shall be provided for Split A/C units.	
10.2	Exhaust fan	Exhaust fans are provided for toilet, dining hall and kitchen area as per design.	
<b>11.</b>	<b>PLUMBING</b>		
11.1	Water line	PPR pipes shall be used for the hot water and cold water distribution and Sewage lines are UPVC pipes.	
11.2	Sanitary fixtures and fittings	Toilet, urinal, partition, shower head/hose, GRP shower cubicle/tray with shower curtain, wash basin, mirror, towel rack, paper holder, soap holder shall be provided as per design.	
11.3	Water Heater	Electrical Water Heater 50 Liters Capacity shall be provided as per design.	