|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Client** | **IGAD Climate Predictions and Application Centre** |  |  |  |
| **Activity** | **Lot 2.1: Rehabilitation of Afbarwaqo Borehole** |  |  |  |
| **Village** | **Afbarwaqo** |  |  |  |
| **District** | **Hobyo, Galmdudg State** |  |  |  |
|  | **Summary** |  |  |  |
| **NO.** | **Description** | **Qty** | **Rate** | **Amount USD** |
|  | Unit prices will include mobilization i.e. Contractor’s plant, machinery, other equipment including his work force etc. to the site |  |  |  |
| 2.1.1 | Supply and installation of generator set with pump | 1 |  |  |
| 2.1.2 | Lay down of pipeline extensions | 1 |  |  |
| 2.1.3 | Construction of water kiosk | 1 |  |  |
| 2.1.4 | Supply and installation of water purification system | 1 |  |  |
| **Total** | | | |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **DESCRIPTION** | **UNIT** | **QTY** | **RATE** | **TOTAL (USD)** |
|  |  |  |  |  |  |
| **2.1.1** | **SUPPLY AND INSTALLATION OF GENERATOR SET WITH PUMP** |  |  |  |  |
|  |  |  |  |  |  |
| **1.0** | **Supply of Generator Set with Pump** |  |  |  |  |
| 1.1 | Supply and installation of 30KVA Air Cooled Diesel Generator Set, KVA: 30 Engine, Open / Volts: 400/230 v, Cycles Hz: 50 Volts, R.P.M: 1500 | Fuel Consumption: 8.3 Liter/hr, diesel driven, 3 phase water cooled | Item | 1 |  |  |
| 1.2 | Supply and installation of submersible pump with 11 Kw motor, 15 HP, 3PH, 208/230V | Item | 1 |  |  |
| 1.3 | Supply and installation of rising main GI pipe 2” with all necessary fittings | Item | 30 |  |  |
| 1.4 | Control Panel | Item | 1 |  |  |
| 1.5 | Water meter | Item | 1 |  |  |
|  | **Subtotal of Supply of generator set with pump** |  |  |  |  |
|  |  |  |  |  |  |
|  | **MAIN SUMMARY** |  |  |  | **AMOUNT (USD)** |
|  |  |  |  |  |  |
|  | Supply of Generator Set with Pump |  |  |  |  |
|  |  |  |  |  |  |
| **Total of supply of generator set with pump** | | | | |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **DESCRIPTION** | **UNIT** | **QTY** | **RATE** | **TOTAL (USD)** |
|  |  |  |  |  |  |
| **2.1.2** | **LAY DOWN OF PIPELINE EXTENSIONS** |  |  |  |  |
|  |  |  |  |  |  |
| **1.0** | **EXCAVATION** |  |  |  |  |
|  | Excavation including maintaining and supporting sides and keeping free from water, mud and fallen materials by bailing, |  |  |  |  |
| 1.1 | Prepare site by stripping top 200 mm of soil to remove all debris including sand (if any) from site and carting away spoil | m2 | 600 |  |  |
| 1.2 | Excavate for foundation strip commencing at stripped levels depth not exceeding 1.50m deep | m3 | 300 |  |  |
| 1.3 | Remove surplus excavated material from site | m3 | 60 |  |  |
|  | **Sub-total of Excavation** |  |  |  |  |
|  |  |  |  |  |  |
| **2** | **PIPELINE** |  |  |  |  |
| 2.1 | Supply and install high pressure UPVC pipe 2" diameter, the price includes all type of bends, elbows, tees, and laying metallic plastic, tracer tape…etc to connect all as noted above, described in the Specifications and as shown on the detailed drawings and as directed by the Engineer. | m | 1500 |  |  |
| 2.2 | Supply and install all required fittings (Tees, elbows, Flanges, reducers/extruders, couplings, spigots, required steel pipes, gaskets, SS bolts, …etc, to connect the proposed UPVC pipe according to Detail. The price should exclude the gate valve and its connection fittings (to be in a separate item). | LS | 1 |  |  |
| 2.3 | Allow for 3" brass gate valves | No | 6 |  |  |
|  | **Sub-total of Pipeline** |  |  |  |  |
|  |  |  |  |  |  |
| **3.0** | **BACKFILLING** |  |  |  |  |
| 3.1 | Backfill around foundations | m3 | 240 |  |  |
|  | **Sub-total of Backfilling** |  |  |  |  |
|  |  |  |  |  |  |
|  | **MAIN SUMMARY** |  |  |  | **AMOUNT (USD)** |
|  |  |  |  |  |  |
|  | Excavation |  |  |  |  |
|  | Pipeline |  |  |  |  |
|  | Backfilling |  |  |  |  |
|  |  |  |  |  |  |
| **Total of pipeline extensions** | |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **DESCRIPTION** | **UNIT** | **QTY** | **RATE** | **TOTAL (USD)** |
|  |  |  |  |  |  |
| **2.1.3** | **CONSTRUCTION OF WATER KIOSK** |  |  |  |  |
|  |  |  |  |  |  |
| **1.0** | **Site Preparation** |  |  |  |  |
| 1.1 | Clear site of all bushes and debris. Grab up roots and burn the arisings | m2 | 9.00 |  |  |
| 1.2 | Load, wheel and cart deposit and spread surplus excavated material where directed on site at a distance not exceeding 100 meters | Item | 1.00 |  |  |
|  | **Sub-total Site Preparation** |  |  |  |  |
|  |  |  |  |  |  |
| **2.0** | **Substructures (Provisional)** |  |  |  |  |
|  | Excavations including maintaining and supporting sides |  |  |  |  |
|  | and keeping free from water, mud and fallen material |  |  |  |  |
| 2.1 | Top soil excavation average 200mm deep | m2 | 9.00 |  |  |
| 2.2 | Excavate trench for foundation not exceeding 1.50 meters deep, starting from stripped levels | m3 | 9.00 |  |  |
|  | Ditto |  |  |  |  |
| 2.3 | Column bases | m3 | 2.56 |  |  |
|  | Planking and strutting |  |  |  |  |
| 2.4 | Allow for keeping foundations free from water, mud, fallen materials, etc. | LS | 1.00 |  |  |
|  | Disposal |  |  |  |  |
| 2.5 | Return, fill and ram selected excavated material around foundations | m3 | 4.68 |  |  |
| 2.6 | Load, wheel and cart deposit and spread surplus excavated material where directed on site at a distance not exceeding 100 meters | m3 | 4.32 |  |  |
|  | Hardcore or other approved filling, as described |  |  |  |  |
| 2.7 | 300mm thick well compacted hardcore filling blinded with |  |  |  |  |
|  | 25mm thick quarry dust layer to receive surface bed | m2 | 3.60 |  |  |
| 2.8 | 50mm thick Quarry dust blinding to surfaces of hardcore :rolled smooth to receive polytheen sheeting (m.s) | m2 | 3.60 |  |  |
|  | Anti-termite treatment |  |  |  |  |
| 2.9 | Gladiator or equal and approved chemical anti-termite treatment, executed complete by an approved specialist under a ten-year guarantee, to surfaces of blinding | m2 | 3.60 |  |  |
|  | Damp-proof membrane |  |  |  |  |
| 2.1 | 1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (m.s) with 300mm side and end laps (measured nett-allow for laps) | m2 | 3.60 |  |  |
|  | **Sub-total Substructures** |  |  |  |  |
|  |  |  |  |  |  |
| **3.0** | **Concrete Works** |  |  |  |  |
|  | Plain concrete class 15 in: |  |  |  |  |
| 3.1 | 50mm blinding | m2 | 1.50 |  |  |
|  | In-situ concrete class 25/20 , vibrated and reinforced as described, in:- |  |  |  |  |
|  | BEAMS |  |  |  |  |
| 3.2 | Ground beam | m3 | 3.00 |  |  |
| 3.3 | Ring beam 1 | m3 | 1.80 |  |  |
|  | COLUMNS |  |  |  |  |
| 3.4 | Columns bases | m3 | 1.54 |  |  |
| 3.5 | Starter columns | m3 | 0.77 |  |  |
| 3.6 | Columns (Height 3m) | m3 | 1.92 |  |  |
|  | SLABS |  |  |  |  |
| 3.7 | 200mm thick surface bed laid in bays including all necessary formwork | m3 | 4.16 |  |  |
|  | Ditto: |  |  |  |  |
| 3.8 | Suspended slab | m3 | 4.16 |  |  |
| 3.9 | Steps | m3 | 0.24 |  |  |
| 3.1 | Platform | m3 | 0.36 |  |  |
|  | Reinforcement, as described:-[PROVISIONAL] |  |  |  |  |
|  | High yield square twisted reinforcement bars to B.S 4461 |  |  |  |  |
|  | BEAMS |  |  |  |  |
|  | GROUND BEAM |  |  |  |  |
| 3.11 | Y12 (Nominal Diameter 12mm) bars as main bars, Cross-Sectional Area (113mm2), Mass per unit length (0.888kg/m) | Kg | 426.24 |  |  |
| 3.12 | R8 (Nominal Diameter 8mm) bars as rings, Cross-Sectional Area (50.3mm2), Mass per unit length (0.395kg/m) | Kg | 51.83 |  |  |
|  | RING BEAM 1 |  |  |  |  |
| 3.13 | Ditto for Y12 as main bars | Kg | 426.24 |  |  |
| 3.14 | Ditto for R8 as rings | Kg | 125.87 |  |  |
|  | COLUMNS |  |  |  |  |
|  | COLUMN BASES |  |  |  |  |
| 3.15 | Y12 (Nominal Diameter 12mm) bars as main bars, Cross-Sectional Area (113mm2), Mass per unit length (0.888kg/m) | Kg | 12.79 |  |  |
|  | STARTER COLUMNS |  |  |  |  |
| 3.16 | Y12 (Nominal Diameter 12mm) bars as main bars, Cross-Sectional Area (113mm2), Mass per unit length (0.888kg/m) | Kg | 21.31 |  |  |
| 3.17 | R8 (Nominal Diameter 8mm) bars as rings, Cross-Sectional Area (50.3mm2), Mass per unit length (0.395kg/m) | Kg | 16.78 |  |  |
|  | COLUMNS |  |  |  |  |
|  | 3m HIGH COLUMNS |  |  |  |  |
| 3.18 | Y12 (Nominal Diameter 12mm) bars as main bars, Cross-Sectional Area (113mm2), Mass per unit length (0.888kg/m) | Kg | 63.94 |  |  |
| 3.19 | R8 (Nominal Diameter 8mm) bars as rings, Cross-Sectional Area (50.3mm2), Mass per unit length (0.395kg/m) Roof Slab Reinforcement | Kg | 50.35 |  |  |
| 3.2 | Y12 (Nominal Diameter 12mm) bars as main bars tops 1 Cross-Sectional Area (113mm2), Mass per unit length (0.888kg/m) | Kg | 56.26 |  |  |
| 3.21 | Y12 (Nominal Diameter 12mm) bars as main bars tops 2 Cross-Sectional Area (113mm2), Mass per unit length (0.888kg/m) | Kg | 56.26 |  |  |
|  | Reference A142 mesh 200 x 200 mm , weight 2.22 kgs per square meter ( measured net - no allowance made for laps (including bends, tying wire and distance blocks) |  |  |  |  |
| 3.22 | Fabric ref. A142 weighing 2.22kg/ sq.metre, in surface bed | m2 | 3.60 |  |  |
|  | Sawn formwork as described to:- |  |  |  |  |
| 3.23 | To edge of floor slab | m2 | 2.00 |  |  |
| 3.24 | Ditto to sides and soffits of roof slab | m2 | 22.00 |  |  |
| 3.25 | Ditto to sides of steps | m2 | 0.64 |  |  |
|  | **Sub-total Concrete Works** |  |  |  |  |
|  |  |  |  |  |  |
| **4.0** | **Walling** |  |  |  |  |
|  | SUB-STRUCTURE WALLING Approved compacted hardcore fill bedded and jointed in cement sand mortar (1:4) |  |  |  |  |
| 4.1 | 400mm thick rubble stone foundation walling | m3 | 10.28 |  |  |
|  | Ditto |  |  |  |  |
| 4.2 | Water pan area | m3 | 5.18 |  |  |
|  | SUPER-STRUCTURE WALLING 200x400mm hollow block walling bedded and jointed in cement and sand (1:4) mortar, reinforcement with and including 25mm wide x 20 gauge hoop iron at every alternate course as described in: |  |  |  |  |
| 4.3 | 200 mm thick reinforced in every third course | m2 | 27.00 |  |  |
|  | Ditto | m2 | 6.48 |  |  |
| 4.4 | Water pan area |  |  |  |  |
|  | Horizontal Damp Proof Course: one layer of 3-ply bituminous felt or other equal approved (measured nett-allow for laps) |  |  |  |  |
| 4.5 | 200mm wide; B.S. 743 Type A bitumen hessian base 150 mm laps (no allowance made for laps); horizontal, 1 no. layer, bedded in cement sand (1:3) mortar | m | 20.80 |  |  |
| 4.6 | PCC coping above parapet wall | m | 10.00 |  |  |
|  | **Sub-total of Walling** |  |  |  |  |
|  |  |  |  |  |  |
| **5.0** | **Roof Finishes** |  |  |  |  |
|  | ROOF STRUCTURE (CONCRETE FLAT ROOF AREA) Prepare and apply APP high performance waterproofing membrane obtained from an approved manufacturer and applied according to the manufacturer's instructions |  |  |  |  |
| 5.1 | 4mm APP membrane applied to roof slabs and gutters | m2 | 20.00 |  |  |
| 5.2 | Dress membrane round 100mm rainwater outlet (provisional) | No. | 2.00 |  |  |
|  | Rain water goods |  |  |  |  |
| 5.3 | Allow for 100mm dia. Fulbora outlet including 300mm heavy duty PVC pipe as storm water drainage | No. | 2.00 |  |  |
| 5.4 | Allow for GI stair fixed to wall to access roof | No. | 1.00 |  |  |
|  | **Sub-total of Roof Finishes** |  |  |  |  |
|  |  |  |  |  |  |
| **6.0** | **Finishes** |  |  |  |  |
|  | Floor Finishes |  |  |  |  |
|  | Cement and sand (1:3) screeds, backings, beds etc |  |  |  |  |
| 6.1 | 25mm Thick cement/sand (1:4) screed to receive Ceramic floor tiles (measured separately) | m2 | 15.84 |  |  |
|  | Lightweight water proofed screeds and plaster |  |  |  |  |
| 6.2 | Roof top slab | m2 | 15.84 |  |  |
|  | Rustic 300x300mm ceramic Tiles from approved supplier fixed with 'seal master 101' or equal and approved tile adhesive: jointed and pointed in 'seal master 201' grout: clean with approved detergent and apply 'Johnson wax' polish: allow for tile spacers: on |  |  |  |  |
| 6.3 | Floor tiles | m2 | 15.84 |  |  |
| 6.4 | Skirtings; |  |  |  |  |
|  | 100mm wide with rounded junction with wall finish and coved junction with floor finish | m2 | 1.00 |  |  |
|  | Ditto: |  |  |  |  |
|  | Water pan | m2 | 1.08 |  |  |
| 6.5 | Ditto for edge of steps and slab | m2 | 0.64 |  |  |
|  | Wall Finish |  |  |  |  |
|  | 15 mm cement and sand (1:3) render, finished with woodfloat to:- |  |  |  |  |
| 6.6 | Concrete or masonry surfaces internally and externally Painting | m2 | 51.84 |  |  |
|  | Fill uneven surfaces with stucco filler to approval and apply two coats soft white external textured paint to: |  |  |  |  |
| 6.7 | Plastered and rendered surfaces | m2 | 51.84 |  |  |
|  | Prepare surfaces and apply three coats gloss oil paint as 'Crown' or equal and approved manufacturer(s) on concrete and masonry surfaces: measured overall on both sides |  |  |  |  |
| 6.8 | Plastered surfaces internally and externally | m2 | 51.84 |  |  |
| 6.9 | Ditto to soffits of suspended slabs | m2 | 20.00 |  |  |
|  | Prepare surfaces and apply three coats gloss oil paint as 'Crown' or equal and approved manufacturer(s) on surfaces of steel casements and burglarproofing grills |  |  |  |  |
| 6.1 | Vent grills | LS | 1.00 |  |  |
|  | **Sub-total of Finishes** |  |  |  |  |
|  |  |  |  |  |  |
| **7.0** | **Electrical Installations** |  |  |  |  |
|  | Lighting Fittings Supply and install following lighting fixtures with all accessories as per the specifications and drawings and complete with lamp fitting and accessories of Engineer or approved make. |  |  |  |  |
| 7.1 | 1200mm fluorescent tube lighting | No. | 1.00 |  |  |
| 7.2 | 150W LED floodlight | No. | 1.00 |  |  |
|  | Switches |  |  |  |  |
| 7.3 | 5 Amps one gang one way switch | No | 2.00 |  |  |
| 7.4 | 5 Amps two gang one way switch | No | 2.00 |  |  |
|  | Socket outlets Supply and installation of fused shuttered switched socket outlet to comply with relevant BS standard (Clipsal, Orange, Crabtree/ Tenby/ABB or equivalent). Wiring (including supply of earth wire and all other material required) of above socket outlet using approved type 2.5mm² PVC/PVC copper cable and 2.5mm² earth wire drawn through securely fixed concealed PVC conduit in a ring circuit. Socket outlet points |  |  |  |  |
| 7.5 | 13 A twin sockets outlet | No | 2.00 |  |  |
|  | Cables, Cable pathways and Conduits Supply, install, test and commission 450/750 volts 6491X cables with all required accessories for proper installation and operation including conduits, pipes ( each cable in separate conduit or pipe), cable lugs, ties... etc. as shown on drawing, as per the preamble, the specifications and supervision engineer's requirements. |  |  |  |  |
| 7.6 | Supply, install and connect complete 1.5 sq. mm colour-coded SC cables to lighting points drawn in Concealed /surface 20mm HG PVC conduits complete with draw boxes, switch boxes and other necessary accessories. | m | 10.00 |  |  |
| 7.7 | Supply and install two compartment floor recessed metallic electrical floor box with flap cover complete with lifting handle, cable flaps, as Crabtree Britmac or equal and approved | No. | 1.00 |  |  |
|  | **Sub-total of Electrical Installations** |  |  |  |  |
|  |  |  |  |  |  |
| **8.0** | **Plumbing Installations** |  |  |  |  |
|  | Sanitary appliances complete with all the connections to services, waste, jointing to supply overflows and plugging and scewing to the floors. Where trade names are mentioned below, the reference is intended to be as a guide to the type of fitting. |  |  |  |  |
| 8.1 | Supply and install heavy duty PPR pipes including all connections | LS | 1.00 |  |  |
| 8.2 | Allow for 4 No. discharge pipes including stainless steel taps | LS | 1.00 |  |  |
| 8.3 | Allow for all connections | LS | 1.00 |  |  |
| 8.4 | Supply and fix a 5000 ltr heavy duty PVC water tank including All necessary plumbing as PPR pipes and connectors | LS | 1.00 |  |  |
|  | **Sub-total of Plumbing Installations** |  |  |  |  |
|  |  |  |  |  |  |
| **9.0** | **Openings** |  |  |  |  |
|  | Windows |  |  |  |  |
|  | Purpose-made steel casement window made of 15mm thick steel plate welded to the frame, 38x38x3mm thick steel angles for window main frame, 20x20x1.5mm RHS welded to steel plate by 200mm long fillet welds at 200mm, hedges and 8mm diameter steel bars embedded in the wall with mortar and welded onto the window frame for anchoring the window complete with all the necessary ironmongery |  |  |  |  |
| 9.1 | Overall size 1500 x 1100mm high | No. | 1.00 |  |  |
| 9.2 | Precast concrete window cill size 260 x 50mm Thick sunk - weathered and throated and bedded and jointed in cement sand mortar |  |  |  |  |
|  | VENT BLOCKS |  |  |  |  |
| 9.3 | 1500mm x 300mm | No. | 2.00 |  |  |
|  | **Doors** |  |  |  |  |
|  | Purpose-made steel casement single door made of 15mm thick steel plate welded to the frame, 38x38x3mm thick steel angles for door main frame, 20x20x1.5mm RHS welded to steel plate by 200mm long fillet welds at 200mm, hedges and 8mm diameter steel bars embedded in the wall with mortar and welded onto the door frame for anchoring the door complete with all the necessary ironmongery |  |  |  |  |
| 9.4 | 50mm thick door overall size 900x2150mm high | No. | 1.00 |  |  |
|  | Supply delivery and fix the following ironmongery with matching screws |  |  |  |  |
| 9.5 | 100mm heavy duty butt hinges | No. | 3.00 |  |  |
| 9.6 | 3 lever mortice lock as Union 2277complete with Union 2277 683 -06 -2 brass lever furniture | No. | 1.00 |  |  |
| 9.7 | Prepare and apply two undercoats and one finishing coat oil paint to steel door | m2 | 4.00 |  |  |
| 9.8 | 100mm thick permanent ventilation blocks over openings | LS | 1.00 |  |  |
|  | **Sub-total of Openings** |  |  |  |  |
|  |  |  |  |  |  |
| **10.0** | **Soak Pit** |  |  |  |  |
|  | SITE PREPARATION |  |  |  |  |
| 10.1 | Prepare site by stripping top 150 mm of soil to remove all debris including sand (if any) from site and carting away spoil | m2 | 3.00 |  |  |
|  | EXCAVATION |  |  |  |  |
|  | Excavation including maintaining and supporting sides and keeping free from water, mud and fallen materials by bailing, pumping or otherwise Pit excavation commencing at reduced levels depth not exceeding |  |  |  |  |
| 10.2 | 1.50m deep | m3 | 1.50 |  |  |
| 10.3 | Ditto 1.50 - 3.00 meters deep | m3 | 0.15 |  |  |
| 10.4 | Remove surplus excavated material from site | m3 | 2.00 |  |  |
| 10.5 | Backfill around foundation | m3 | 0.40 |  |  |
| 10.6 | Rubble stone fill | m3 | 2.00 |  |  |
|  | CONCRETE WORKS |  |  |  |  |
|  | Vibrated reinforced concrete class 15 (1:3:6) with 20mm maximum aggregate as described in: |  |  |  |  |
| 10.7 | 300mm thick cover slab | m3 | 1.00 |  |  |
|  | REINFORCEMENT |  |  |  |  |
| 10.8 | Mesh fabric reinforcement ref. No. A142 laid in slab with minimum 150 mm side allowance | m2 | 3.00 |  |  |
|  | FORMWORK |  |  |  |  |
| 10.9 | Sawn formwork to edges of slab over 225mm girth but not exceeding 300mm | m | 6.40 |  |  |
| 10.1 | Ditto to soffits of cover slab | m2 | 3.00 |  |  |
|  | **Sub-total of Soak Pit** |  |  |  |  |
|  |  |  |  |  |  |
| **11.0** | **Catch Pit** |  |  |  |  |
|  | SITE PREPARATION |  |  |  |  |
| 11.1 | Prepare site by stripping top 150 mm of soil to remove all debris including sand (if any) from site and carting away spoil | m2 | 0.36 |  |  |
|  | EXCAVATION |  |  |  |  |
|  | Excavation including maintaining and supporting sides and keeping free from water, mud and fallen materials by bailing, pumping or otherwise |  |  |  |  |
| 11.2 | Pit excavation commencing at reduced levels depth not exceeding 1.50m deep | m3 | 0.32 |  |  |
| 11.3 | Remove surplus excavated material from site | m3 | 1.00 |  |  |
| 11.4 | Backfill around foundation | m3 | 0.40 |  |  |
| 11.5 | Rubble stone fill | m3 | 0.70 |  |  |
|  | CONCRETE WORKS |  |  |  |  |
|  | Vibrated reinforced concrete class 15 (1:3:6) with 20mm maximum aggregate as described in: |  |  |  |  |
| 11.6 | 100mm thick base slab | m3 | 0.10 |  |  |
| 11.7 | 50mm thick walls | m2 | 2.16 |  |  |
|  | REINFORCEMENT |  |  |  |  |
| 11.8 | High tensile reinforcement bars in assorted sizes | m2 | 3.00 |  |  |
|  | FORMWORK |  |  |  |  |
| 11.9 | Sawn formwork to edges of slab over 75mm girth but not exceeding 150mm | m | 2.40 |  |  |
| 11.10 | Ditto to sides of walls | m2 | 4.32 |  |  |
| 11.11 | Mild steel cover comprising of Y16 bars welded to 25x25x6mm steel angles at 50mm centers | No | 1.00 |  |  |
| 11.12 | Allow for 600 x 600mm manholes | No. | 7.00 |  |  |
| 11.13 | Allow for 3" brass gate valve complete with fittings | No. | 7.00 |  |  |
|  | **Sub-total of Catch Pit** |  |  |  |  |
|  |  |  |  |  |  |
| **12.0** | **FIBERGLASS TANK** |  |  |  |  |
| 12.1 | 1 m.cubic fiberglass tank | No. | 1.00 |  |  |
|  | **Sub-Total of Fiberglass Tank** |  |  |  |  |
|  |  |  |  |  |  |
|  | **MAIN SUMMARY** |  |  |  | **AMOUNT (USD)** |
|  |  |  |  |  |  |
|  | Site Preparation |  |  |  |  |
|  | Substructures (Provisional) |  |  |  |  |
|  | Concrete Works |  |  |  |  |
|  | Walling |  |  |  |  |
|  | Roof Finishes |  |  |  |  |
|  | Finishes |  |  |  |  |
|  | Electrical Installations |  |  |  |  |
|  | Plumbing Installations |  |  |  |  |
|  | Openings |  |  |  |  |
|  | Soak Pit |  |  |  |  |
|  | Catch Pit |  |  |  |  |
|  | Fiberglass Tank |  |  |  |  |
| **Total of construction of water kiosk** | |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ITEM** | **DESCRIPTION** | **UNIT** | **QTY** | **RATE** | **TOTAL (USD)** |
|  |  |  |  |  |  |
| **2.1.4** | **SUPPLY AND INSTALLATION OF WATER PURIFICATION SYSTEM** |  |  |  |  |
|  |  |  |  |  |  |
| 1.1 | **Water Purification System**  Pre-treatment systems, series of filtration system, Back wash system, UV-disinfection, PLC-automatic control system incl. sensor and el. System, Air-condition system. Raw water supply system, FAT/SAT, training/documentation/Service  FILTER LIFE: Minimum 5 years.  Product flow (m³/d) 20 - 25  Product flow (L/h) 833 - 1040  Feed water TDS mg/L up to 5000  Recovery rate % up to 75  Salt rejection: 99%  Membranes 6 x 4040  High-pressure pump (kW) 2,5 - 3,0  Overall power consumption (kW) 3. - 5.  Solar powered (backed up Generator available) - with or without batteries  Approximate number of PV panels  Container (ft) - 20. | Pcs | 1 |  |  |
| 1.2 | Digital TDS Meter, with ATC up 5,000 ppm (g/l) | Pcs | 1 |  |  |
| 1.3 | Digital pH Meter, with ATC Up to 8.1 | Pcs | 1 |  |  |
| 1.4 | Consumable set of filters for 2-year | Set | 3 |  |  |
| 1.5 | Training for 3 focal staffs in Operation & maintenance, filter changing and cleaning | LS | 1 |  |  |
|  | **Sub Total** |  |  |  |  |
|  |  |  |  |  |  |
|  | **MAIN SUMMARY** |  |  |  | **AMOUNT (USD)** |
|  |  |  |  |  |  |
|  | Supply and installation of water purification system |  |  |  |  |
|  |  |  |  |  |  |
| **Total of water purification system** | |  |  |  |  |