**OFFICE OF THE EXECUTIVE ENGINEER PUBLIC HEALTH ENGINEERING DIVISION SANGHAR.**

**FUND HEAD:** District

**MAJOR HEAD:** 9-32000 P.H. Services Water Supply Sanitation Sewerage and Refused disposal (capital)

**MINOR HEAD**:

A.D.P Schemes 2017 – 18 District Sanghar.

**DEPARTMENTAL HEAD**: Detailed working Estimate for Construction of R.O Plant for Village Taj Malook Junejo UC Mittho Khoso Taluka Tando Adam District Sanghar.

Estimate framed in the office of the Executive Engineer, Public Health Engineering Division Sanghar for the Probable Expenditure that will be incurred for Construction of R.O Plant for Village Taj Malook Junejo UC Mittho Khoso Taluka Tando Adam District Sanghar.

**ESTIMATE COST RS. 2500000/-**

**GENERAL DESCRIPTION.**

1. This Estimate amounting to Rs.2500000/- for Construction of R.O Plant for Village Taj Malook Junejo UC Mittho Khoso Taluka Tando Adam District Sanghar.

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2. The work will be carried out as per P.W.D specification of volume I & II & as per instruction of Engineer Incharge.

3. The work will be late out after calling competitive tenders from approved contractors of Public Health Engineering Department..

|  |  |
| --- | --- |
| assistant engineer  public health engg Sub Division  tando adam. | executive engineer  public health engg: Division  sanghar. |

**DETAIL WORKING ESTIMATE OF CONSTRUCTION OF R.O PLANT FOR FOR VILLAGE TAJ MALOOK JUNEJO UNION COUNCIL MITHO KHOSO TALUKA TANDO ADAM DISTRICT SANGHAR**

**PART-A PUMP HOUSE**

1. Excavation in foundation of building and other structure i/c dag belling dressing refilling around the structure with excavated earth watering and ramming lead up to one chain and lift up to 5’ (In ordinary soil) (GSI No: 18(b) P/5).

l.w. 2x22.50x2.0x2.5 = 225.00 Cft.

3x12.50x2.0x2.5 = 187.50 Cft.

= 412.50 Cft.

**412.50 Cft. Rs.3176/25 P%0Cft. Rs. 1310/-**

2. Cement concrete brick or stone ballast 1” to 1 ½” gauge. Ratio 1:4:8. (GSI No: 4(c) P.15).

2x22.50x2.0x0.50 = 45.00 Cft.

3x12.50x2.0x0.50 = 37.50 Cft.

1x14.0x12.0x0.33 = 55.44 Cft.

1x14.0x6.0x0.33 = 27.72 Cft.

= 165.66 Cft.

**165.66 Cft. Rs.9416/28 P% Cft. Rs. 15599/-**

3. Cement concrete plain i/c placing compacting finishing curing complete i/c screening & washing of stone aggregate without shuttering Ratio (1:3:6). (GSI No: 5 P/16)

2x22.0x1.0x4.00 =176.00 Cft.

3x12.0x1.0x4.00 =144.00 Cft.

=320.00 Cft

**320.00 Cft. Rs: 12595/- P% Cft. Rs: 40304/-**

4. Erection & removing centering for RCC in plain cement concrete work. (GSI No: 19B P/18)

2 x 2 x 22.0 x 4.00 = 352.0 Sft

2 x 3 x 12.0 x 4.00 = 288.0 Sft

= 640.0 Sft

**640.0 Sft. Rs.3127/41 P%Sft. Rs.20015/-**

5. Pucca brick work in ground floor (Ratio 1:6) (GSI No:5, P/22).

2x20.25x0.75x12.0 = 364.50 Cft.

3x14.0x0.75x12.0 = 378.00 Cft.

= 742.50 Cft. Deduction Door & Window.

4.0x7.0x0.75 = 21.00 Cft.

3x3.0x4.0x0.75 = 27.00 Cft.

1x10.0 x0.75x12.0 = 90.00 Cft.

= 138.0 Cft.

Net Quantity. 742.50 (-) 138..0 = 604.50 Cft.

**604.50 Cft. Rs.12674/36 P%Cft. Rs. 76617/-**

6. Reinforcement cement concrete work i/c all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms, moulds, lifting, shuttering curing, rendering and finishing the exposed and surface (i/c screening and washing of shingle.(a) RCC work in roofs, slabs, beams, columns, rafts, lintels and other structural members laid in site or precast laid in position complete in all respect. (G.S.I.No: 6,P/17).

Roof Slab 1x23.25x18.50x0.50 = 215.06 Cft.

Lintels, door window. 4x5.0x0.75x0.50 = 7.50 Cft.

### Total: - = 222.56 Cft.

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**222.56 Cft. Rs.337/- P/Cft. Rs.75003/-**

7. Fabrication of mild steel reinforcement for cement concrete i/c cutting bending Laying in position making joints and fastening i/c cost of binding wire also removal of rust from Bars (G.S.I.No:7(b)P/11).

121x4.50÷112 = 8.94 Cwt.

**8.94 Cwt. Rs.5001/70 P/Cwt. Rs.42014/-**

8. Providing and laying tiles glazed 6”x6”x¼” on floor or wall facing in required colour and pattern of stile specification jointed in white cement and pigment over a base of 1:2 gray cement mortar ¾” thick i/c washing and filling of joint with slurry of white cement and pigment in deride shape with finishing cleaning and cost of wax polish etc complete i/c cutting tiles to proper profile . (GSI No:60 P/ 47)

Floor 1x14.0x12.0 =168.0 Sft.

Inside wall 2x(12.0+14.0)x3.0 =156.0 Sft

Verandha 2x10.75x12.0 =258.0 Sft.

1x14.0x12.0 =168.0 Sft

=750.0 Sft.

**750.0 Sft. Rs.30590/77 P% Sft. Rs. 229431/-**

9. Cement plaster (1:6) up to 12’ ft: height ½” thick. (GSI No:13(b) P-52).

Room. 2x (14.0+12.0) x12.0 = 624.00 Sft.

Verandah. 1x (14.0+6.0+6.0) x12.0 = 312.00 Sft.

Pillar. 2x2.25x2.25x12.0 = 121.50 Sft.

= 1057.50 Sft.

Deduction Door & Windows.

2x4.0x7.0 = 56.00 Sft.

1x 3x3.0x4.0 = 36.00 Sft.

= 92.00 Sft.

Net Quantity. 1057.50 (-) 92.00 =965.5 Sft.

**965.50 Sft. Rs: 2206/60 P%Sft. Rs: 21305/-**

10. Cement plaster (1:4) up to 12’ ft: height 3/8” thick. (GSI No: 11 P-52).

Quantity same as item No: 8 = 965.50 Sft.

**965.50 Sft. Rs: 2197/52 P%Sft. Rs: 21217/-**

11. Cement Pointing struck joints on wall ratio (1:3) (GSI No: 19 P/53)

O/S 2x (20.25+15.50) x12.0 = 858.0 0 Sft.

**858.00 Sft: Rs. 1213/58 P% Cft: Rs. 10413/-**

12. Making and fixing steel grated door with 1/6” thick sheeting i/c angle iron frame 2”x2” 3/8” and ¾” square bars 4” center to center with locking arrangement. (GSI No: 24, P/91).

1x4.0x7.0 =14.0 Sft.

**14.0 Sft. Rs.726/72 P/Sft. Rs. 10174/-**

13. Supplying and fixing in position iron/steel grill of ¾”x ¼” size flat iron of approved design i/c painting 3 coats etc complete weight not less than 3.7 lbs/sq foot of finished grill (GSI No: 26,P-95).

3x3.0x4.0 =36.00 Sft.

**36.00 Sft. Rs.150/80 P/Sft. Rs. 5429/-**

12. Fabrication of heavy steel work with angle tees flat iron round iron and sheet iron for making truss girders made etc i/c cutting reverting handling assembling and fixing but excluding errection in position. (GSI No: 2 P-91)

Windows 2x3.0x4.0= 24 x 9.50 =2.03 Cwt.

112

**2.03 Cwt. Rs.4928/49 P/Cwt. Rs. 10005/-**

14. Errection and fitting in position trusses staging of water tank etc complete (G.S.I No:3 P-91)

**2.03 Cwt Rs. 271/04 P/Cwt Rs. 550/-**

15. PAINTING NEW SURFACE.

Preparing surface and painting of door and window; any type i/c edge three coats (GSI No: 5, P/70).

Window 2x3x3.0x4.0 = 48.0 Sft

Door 1x2.0x4.0x7.0 = 42.0 Sft.

= 90.0 Sft

**90.00 Sft. Rs.2116/41 P%Sft. Rs.1905/-**

16. Primary of chalk distember One coat. (GSI No: 23, P/54).

Qty: same item No: 9. = 965.50 Sft.

**965.50 Sft. Rs.442/75 P% Sft. Rs. 4275/-**

17. Distempering two coats (GSI No: 24, P/54)

Qty: same item No: 9 =965.50 Sft.

**965.50 Sft. Rs.1043/90 P% Sft. Rs. 10079/-**

18. Preparing the surface and painting with weather coat i/c rubbing the surface with rubbing bricks snd paper filling the voids with chalk/plaster of paris and then painting with weather coat of approved make. (GSI No: 38 (a),P -56 )

12 x 14 =168

14 x 06 = 84

Qty: Item No:7 =965.50

=1217.50 Sft

**1217.50 Sft Rs.1948/10 P% Sft Rs. 23718/-**

19 Supplying and fixing Fiber glass tank of approved quality and design wall thickness as specified i/c cost of nut bolts and fixing in plate form of cement concrete 1:3:6 and making connections for in let out let and over flow inlet out let pipes etc complete. (S.O.S.I No: 3 (e) P / 18 )

1000 Gallons Rs.42500/- Each Rs.42500/-

20. Providing C.I pipe specials and clamps etc i/c fixing cutting and fitting complete with and i/c the cost of breaking through walls and roof making good etc painting two coats after cleaning the pipe etc with white Zink paint with pigment to match the colour of the building and testing with water to a pressure head of 200 feet and handling. (S.O.S.I No: 1 P / 11 )

1. 1 ½” Dia =100.0 Rft Rs.256/- P/Rft Rs.25600/-
2. 2” Dia =150.0 Rft Rs.300/- P/Rft Rs.45000/-

21 Providing and fixing water pumping set with Siemens motor and Javed pump I.H.P 1400 RMP single phase 220 volts 2x 1/12” suction and delivery 40 ft Head i/c base plate and also making C.C 1:3:6 plate form of required size and fixing with nuts and bolts complete in all respect.. (E..S.I No: 1 P / 29 )

01 No Rs.42500/- Each Rs.42500/-

**Electric Works**

21. Wiring for light of fan point with (3/0.29)PVC insulated wire 20mm(½”) PVC conduit on surface as required (E.S.I No:1 P-1)

1 x 14 = 14.0 Points

14.0 Points : Rs. 439.21 P/Point Rs.6149/-

22. Providing & Fixing A.C on way S.P 5 amps switch flush type on given prepare board (E.S.I No:1 P-10)

1 x 14 = 14.0 Points

14.0 Nos: Rs. 34/38 Each Rs.481/-

23. Providing & Fixing Surface type 3 pin 15 amp S.P surface plugs Sockets, switches & Shoe units on (E.S.I No:15 P-11)

1 x 1 = 1.0 No:

1.0 No : Rs. 166.97 Each Rs.167/

24. Providing & Fixing B-C bake lit angular type button holder (E.S.I No:1 P-13)

1 x 14 = 14.0 Nos:

14.0 Nos: Rs. 53/69 Each Rs.752/-

25. Supplying and Fixing of A.C ceiling fan 56” inch (Good Quality )

1.0 No : Rs. 3185/- Each Rs.3185/-

26. Providing & Fixing Energy sewer superior quality i/c fixing existing holder etc (E.S.I No: 3 p-34)

1 x 10 = 10.0 Points

10.0 Nos: Rs. 209/- Each Rs.2090/-

##### Total:- Rs.787787/-

18. Cartage of 100 cft/5 tons of all material lime stone aggregate spwal coat lime Surkhi etc B.G rail fastening bridges girders pipes sheets Rails M.S bars etc or 1000 Nos: brick 10”x5”x3” or 1000 Nos: tiles 12”x6”x2” or 150 cft chamber or 1000 mounds of fuel wood by truck or any other means owned by the contractor (Sched:of carriage of material item No:1,P/1).

i) Bajri from khanote to site of work. (Lead 93 miles).

490.0 Cft. Rs.3604/68 P% Cft. Rs. 17663/-

ii) Stone ballast from Shah Nihal to site of work (lead 65 miles).

159.0 Cft. Rs.2693/- P% Cft. Rs. 4282/-

iii) Hill sand from Bholari to site of work (Lead 73 miles).

565.0 Cft. Rs.2953/48 P% Cft. Rs. 16687/-

iv) Cement from Zeal Pak cement factory Hyderabad to site of work (lead 62 Miles).

133.0 Bags. Rs.43/53 P/Bag. Rs. 5790/-

v) Bricks from nearest kiln to site of work (Lead 11 miles)

8161.0 Nos: Rs.747/79 P%0 Nos: Rs. 6103/-

vi) Steel from Hyderabad to site of work (lead 59 miles)

8.94 Cwt Rs.24/97 P/Cwt Rs. 223/-

**TOTAL:- Rs.838535/-**

assistant engineer

public health engg Sub Division

tando adam

Executive engnieer

public health engg division

sanghar

**MATERIAL STATEMENT OF STAFF QUARTER**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S.No | ITEMS | QTY | STONE | BAJRI | HILL SAND | CEMENT | BRICKS | STEEL |
| 1 | C.C Brick or Stone 1:4:8 | 165.66 | 159.03 | — | 79.51 | 15.90 | — | — |
| 2 | C.C Plain Ration 1:3:6 | 320.0 | — | 294.40 | 147.20 | 41.60 | — | — |
| 3 | Pucca Brick Work in ground floor Ratio 1:6 | 604.50 | — |  | 155.35 | 20.79 | 8160.75 | — |
| 4 | R.C.C Work Ratio 1:2:4 | 222.56 | — | 195.85 | 97.92 | 39.17 | — | 8.94 |
| 6 | Cement Plaster (1:4) 3/8” thick | 965.50 |  |  | 28.96 | 5.50 |  | — |
| 7 | Cement Plaster (1:6) ½" thick | 965.50 | — |  | 38.62 | 5.11 | — | — |
|  | Cement pointing (1:3) | 858.0 |  |  | 17.16 | 4.63 |  |  |
|  | TOTAL | | 159.03 | 490.25 | 564.72 | 132.7 | 8160.75 | 8.94 |
|  | SAY | | 159.00 | 490.00 | 565.0 | 133.0 | 8161.0 | 8.94 |

PART-B **R.O PLANT I/C SOLAR SYSTEM**

Providing , Installing & Testing of R.O Plant 800 Gallons per day i/c Bore, Solar System complete in All respect.

1x1= 1 No: Rs. 1611000/- Each Rs.1611000/-

assistant engineer

public health engg Sub Division

tando adam

Executive engnieer

public health engg division

sanghar

**DETAIL WORKING ESTIMATE OF CONSTRUCTION OF R.O PLANT FOR VILLAGE TAJ MALOOK JUNEJO UNION COUNCIL MITHO KHOSO TALUKA TANDO ADAM DISTRICT SANGHAR**

**ABSTRACT**

PART-A PUMP HOUSE Rs. 838535/-

PART-B R.O PLANT I/C SOLAR Rs.1611465/-

Total : Rs.2450000/-

assistant engineer

public health engg Sub Division

tando adam

Executive engnieer

public health engg division

sanghar

**SCHEDULE “B”**

**NAME OF WORK:- CONSTRUCTION OF R.O PLANT FOR VILLAGE TAJ MALLOK JUNEJO UNION COUNCIL MITHO KHOSO TALUKA TANDO ADAM DISTRICT SANGHAR**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.No | Item of work | Qty | Rate | Unit | Amount |

**PART-A PUMP HOUSE**

1. Excavation in foundation of building and other structure i/c dag belling dressing refilling around the structure with excavated earth watering and ramming lead up to one chain and lift up to 5’ (In ordinary soil) (GSI No: 18(b) P/5).

**412.50 Cft. Rs.3176/25 P%0Cft. Rs. 1310/-**

2. Cement concrete brick or stone ballast 1” to 1 ½” gauge. Ratio 1:4:8. (GSI No: 4(c) P.15).

**165.66 Cft. Rs.9416/28 P% Cft. Rs. 15599/-**

3. Cement concrete plain i/c placing compacting finishing curing complete i/c screening & washing of stone aggregate without shuttering Ratio (1:3:6). (GSI No: 5 P/16)

**320.00 Cft. Rs: 12595/- P% Cft. Rs: 40304/-**

4. Erection & removing centering for RCC in plain cement concrete work. (GSI No: 19B P/18)

**640.0 Sft. Rs.3127/41 P%Sft. Rs.20015/-**

5. Pucca brick work in ground floor (Ratio 1:6) (GSI No:5, P/22).

**604.50 Cft. Rs.12674/36 P%Cft. Rs. 76617/-**

6. Reinforcement cement concrete work i/c all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms, moulds, lifting, shuttering curing, rendering and finishing the exposed and surface (i/c screening and washing of shingle.(a) RCC work in roofs, slabs, beams, columns, rafts, lintels and other structural members laid in site or precast laid in position complete in all respect. (G.S.I.No: 6,P/17).

**222.56 Cft. Rs.337/- P/Cft. Rs.75003/-**

7. Fabrication of mild steel reinforcement for cement concrete i/c cutting bending Laying in position making joints and fastening i/c cost of binding wire also removal of rust from Bars (G.S.I.No:7(b)P/11).

**8.94 Cwt. Rs.5001/70 P/Cwt. Rs.42014/-**

8. Providing and laying tiles glazed 6”x6”x¼” on floor or wall facing in required colour and pattern of stile specification jointed in white cement and pigment over a base of 1:2 gray cement mortar ¾” thick i/c washing and filling of joint with slurry of white cement and pigment in deride shape with finishing cleaning and cost of wax polish etc complete i/c cutting tiles to proper profile . (GSI No:60 P/ 47)

**750.0 Sft. Rs.30590/77 P% Sft. Rs. 229431/-**

9. Cement plaster (1:6) up to 12’ ft: height ½” thick. (GSI No:13(b) P-52).

**965.50 Sft. Rs: 2206/60 P%Sft. Rs: 21305/-**

10. Cement plaster (1:4) up to 12’ ft: height 3/8” thick. (GSI No: 11 P-52).

**965.50 Sft. Rs: 2197/52 P%Sft. Rs: 21217/-**

11. Cement Pointing struck joints on wall ratio (1:3) (GSI No: 19 P/53)

**858.00 Sft: Rs. 1213/58 P% Cft: Rs. 10413/-**

12. Making and fixing steel grated door with 1/6” thick sheeting i/c angle iron frame 2”x2” 3/8” and ¾” square bars 4” center to center with locking arrangement. (GSI No: 24, P/91).

**14.0 Sft. Rs.726/72 P/Sft. Rs. 10174/-**

13. Supplying and fixing in position iron/steel grill of ¾”x ¼” size flat iron of approved design i/c painting 3 coats etc complete weight not less than 3.7 lbs/sq foot of finished grill (GSI No: 26,P-95).

**36.00 Sft. Rs.150/80 P/Sft. Rs. 5429/-**

12. Fabrication of heavy steel work with angle tees flat iron round iron and sheet iron for making truss girders made etc i/c cutting reverting handling assembling and fixing but excluding errection in position. (GSI No: 2 P-91)

**2.03 Cwt. Rs.4928/49 P/Cwt. Rs. 10005/-**

14. Errection and fitting in position trusses staging of water tank etc complete (G.S.I No:3 P-91)

**2.03 Cwt Rs. 271/04 P/Cwt Rs. 550/-**

15. PAINTING NEW SURFACE.

Preparing surface and painting of door and window; any type i/c edge three coats (GSI No: 5, P/70).

**90.00 Sft. Rs.2116/41 P%Sft. Rs.1905/-**

16. Primary of chalk distember One coat. (GSI No: 23, P/54).

**965.50 Sft. Rs.442/75 P% Sft. Rs. 4275/-**

17. Distempering two coats (GSI No: 24, P/54)

**965.50 Sft. Rs.1043/90 P% Sft. Rs. 10079/-**

18. Preparing the surface and painting with weather coat i/c rubbing the surface with rubbing bricks snd paper filling the voids with chalk/plaster of paris and then painting with weather coat of approved make. (GSI No: 38 (a),P -56 )

**1217.50 Sft Rs.1948/10 P% Sft Rs. 23718/-**

19 Supplying and fixing Fiber glass tank of approved quality and design wall thickness as specified i/c cost of nut bolts and fixing in plate form of cement concrete 1:3:6 and making connections for in let out let and over flow inlet out let pipes etc complete. (S.O.S.I No: 3 (e) P / 18 )

1000 Gallons Rs.42500/- Each Rs.42500/-

20. Providing C.I pipe specials and clamps etc i/c fixing cutting and fitting complete with and i/c the cost of breaking through walls and roof making good etc painting two coats after cleaning the pipe etc with white Zink paint with pigment to match the colour of the building and testing with water to a pressure head of 200 feet and handling. (S.O.S.I No: 1 P / 11 )

1. 1 ½” Dia =100.0 Rft Rs.256/- P/Rft Rs.25600/-
2. 2” Dia =150.0 Rft Rs.300/- P/Rft Rs.45000/-

21 Providing and fixing water pumping set with Siemens motor and Javed pump I.H.P 1400 RMP single phase 220 volts 2x 1/12” suction and delivery 40 ft Head i/c base plate and also making C.C 1:3:6 plate form of required size and fixing with nuts and bolts complete in all respect.. (E..S.I No: 1 P / 29 )

01 No Rs.42500/- Each Rs.42500/-

**Electric Works**

21. Wiring for light of fan point with (3/0.29)PVC insulated wire 20mm(½”) PVC conduit on surface as required (E.S.I No:1 P-1)

14.0 Points : Rs. 439.21 P/Point Rs.6149/-

22. Providing & Fixing A.C on way S.P 5 amps switch flush type on given prepare board (E.S.I No:1 P-10)

1 x 14 = 14.0 Points

14.0 Nos: Rs. 34/38 Each Rs.481/-

23. Providing & Fixing Surface type 3 pin 15 amp S.P surface plugs Sockets, switches & Shoe units on (E.S.I No:15 P-11)

1.0 No : Rs. 166.97 Each Rs.167/

24. Providing & Fixing B-C bake lit angular type button holder (E.S.I No:1 P-13)

14.0 Nos: Rs. 53/69 Each Rs.752/-

25. Supplying and Fixing of A.C ceiling fan 56” inch (Good Quality )

1.0 No : Rs. 3185/- Each Rs.3185/-

26. Providing & Fixing Energy sewer superior quality i/c fixing existing holder etc (E.S.I No: 3 p-34)

1 x 10 = 10.0 Points

10.0 Nos: Rs. 209/- Each Rs.2090/-

##### Total:- Rs.787787/-

PART-B **R.O PLANT I/C SOLAR SYSTEM**

Providing , Installing & Testing of R.O Plant 800 Gallons per day i/c Bore, Solar System complete in All respect.

1x1= 1 No: Rs. 1611000/- Each Rs.1611000/-

Rs. 1611000/-

***ABSTRACT***

**PART-A PUMP HOUSE Rs.** **787787/**

**PART-B R.O PLANT Rs. 1611000/-**

**Total Rs. 2398787/-**

***CONDITIONS.***

*1. Any error omission in the specification quantity and unit will be governed by the relevant schedule items.*

*2. The rates should be inclusive of all taxes i.e. sales tax octori tax etc.*

*3. No separate carriage will be paid to the contractor.*

1. *No premium will be allowed for non-schedule items.*
2. *The decision of the Superintending Engineer, Works and Services Sanghar will be final and binding the parties in any dispute.*

EXECUTIVE ENGINEER

CONTRACTOR. PUBLIC HEALTH ENGG: DIVISION

SANGHAR