



**THE SHAIKH AYAZ UNIVERSITY,**  
**SHIKARPUR**



**CONSTRUCTION OF MAIN GATE, WAITING  
AREA AND MONUMENT FOR THE PROJECT  
TITLED “PROVISION OF MISSING  
FACILITIES FOR THE SHAIKH AYAZ  
UNIVERSITY SHIKARPUR”**

**BILL OF QUANTITIES**

**April, 2022**

**CONSTRUCTION OF MONUMENT FOR THE SHAIKH AYAZ UNIVERSITY  
SHIKARPUR**

**DETAILED ESTIMATE**

**SUMMARY OF COST**

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

Sr. No.	DESCRIPTION	AMOUNT
1.	<b>CIVIL WORKS</b>	
a	Cost of Schedule Items	
b	Add 10 % Premium on Schedule Items	
c	Cost of Non-Schedule Items	
	<b>TOTAL</b>	
	<b>5% SST</b>	
	<b>GRAND TOTAL</b>	
	<b>PC-I COST</b>	

## CONSTRUCTION OF MONUMENT FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR

### DETAILED ESTIMATE

#### CIVIL WORKS

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
1	C-1/18(b)	Excavtion in foundation of Building Bridges and other structures including dagbelling dressing,refilling around structrure with excavated earth Watering and ramming lead upto 5 ft in Ordinary Soil.	%0Cft	664.06		
2	C-18/92	Providing Anti -termmite treatment by spraying /sprinkling /spreading Neptachlar 0.5% Emulsion as an overall pre - construction treatment in slab type construction under the slab and along attached perches or entrances etc, complete as per directions of Engineer Incharge.	P.Sft	368.75		
3	C-4/5(i)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering.(Mix 1:4:8)	%Cft	96.81		
4	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Foundation)	P.Cft	234.00		
5	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Ground Floor)	P.Cft	49.82		
6	C-4/6 a-i +6 (d)	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (First Floor)	P.Cft	149.24		
7	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) UPL	P.Cft	21.24		
8	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3). G.F	P.Cft	95.58		
9	C-4/6 a-ii +6 (d)	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) F.F	P.Cft	30.00		
10	C-4/8(b)	Fabrication of mild steel reinforcement for cement concrete including cutting,bending, laying in position, making joints and fastenings including cost of binding wire (also includes removal of rust from bars.) Using Tor bars	P.Cwt	47.76		
11	C-5/4-I(e)	Pacca brick work in foundation and plinth in cement sand mortar 1:6.	%Cft	344.64		
12	C-5/5-I(d) + 6	Pacca brick work in First Floor cement, sand mortar Ratio 1:5	%Cft	131.63		
13	C-9/11(c)	Cement plaster 1:4 Ground Floor upto 12' height:- c) ¾" (20 mm) thick. (External)	%Sft	243.94		

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
14	C-9/11(c)+29	Cement plaster 1:4 First Floor upto 12' height:- c) ¾" (20 mm) thick. (External)	%Sft	559.38		
15	C-9/34	Extra labour rate for making grooves of 1" x 1/4" or 3/4" x 1/2" plastered surface with true edges both vertically and horizontally with uniform depth and, with groove base smoothly finished etc. complete as per instruction of Engineer Incharge.	P.Rft	99.75		
16	C-9/10(a)+29	Cement plaster 3/8" thick under soffit or R.C.C. roof slab only upto 12' height ratio 1:3. First Floor	%Sft	104.56		
17	C-5/29	Supplying and filling sand under floor and plugging in walls.	%Cft	29.04		
18	C-4/2	Dry rammed brick or stone ballast 1 1/2" to 2" gauge.	%Cft	29.04		
19	C-4/5(f)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering).(Mix 1:2:4)	%Cft	14.70		
20	C-9/38A+38 B	Preparing the surface and painting with weather coat l/c rubbing the surface with rubbing brick/ sand Paper, filling the voids with chalk/ plaster of Paris and then painting with weather coat of approved make. (New Coat + subsequent Coat)	%Sft	171.00		
21	C-4/7(ii)	Extra cost due to use of Hi Bond Pre-packaged Polymer Modified mortar (DHPMM) as an admixture in concrete mix for increasing durability, to be used in concreting, flooring, block/ brick/ stone masonry or plastering as % by weight of cement.	P.Kg	1.63		
22	C-17/2+3	Fabrication of heavy steel work with angles, tees, flat iron, round iron and sheet iron for making trusses, girders, tanks etc. including cutting, tanks etc. including cutting, drilling rivetting, handling assembling and fixing including erection in position. (Box Top)	P.Cwt	2.08		
23	C-11/5-(c)	Painting new surfaces:- (d) Preparing surface and painting guard bars, gates of iron bars, gratings, railings (including standards braces, etc). and similar open work. 3 coats.	%Sft	135.35		
<b>Total of SOR ITEMS</b>						

**CONSTRUCTION OF MONUMENT FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR****DETAILED ESTIMATE****CIVIL WORKS****Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh**

<b>Sr. No.</b>	<b>Item No.</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
1	NSI	Providing and fixing 3/4" thick pre-polished Black Granite full width area above 2 Sft laid in white cement matching pigment 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement & matching pigment, making gola on exposed edges complete in all respect as approved by the Engineer/ Incharge.	P.Sft	920.54		
2	NSI	Providing and fixing Stainless Steel (24 SWG) Letters with CNC laser cutting i/c all hardware required complete in all respect as per drawings and direction of Engineer In-charge.	Each	116.00		
3	NSI	Providing and fixing Stainless Steel Logo with colour print including the cost of fitting accessories complete in all respect as per drawings and approval of Engineer Incharge.	Each	4.00		
		<b>Total of Non SOR ITEMS</b>				

**CONSTRUCTION OF MAIN GATE & WAITING AREA FOR THE SHAIKH AYAZ  
UNIVERSITY SHIKARPUR**

**DETAILED ESTIMATE**

**SUMMARY OF COST**

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

<b>Sr. No.</b>	<b>DESCRIPTION</b>	<b>AMOUNT</b>
<b>1.</b>	<b>CIVIL WORKS</b>	
<b>a</b>	Cost of Schedule Items	
<b>b</b>	Add 5 % Premium on Schedule Items as per Notification (No.CE(B)/PB/B-1 1071 Dated 28-12-2022 (Sukkur)	
<b>c</b>	Add 10 % Premium on Schedule Items as per Notification (No.CE(B)/PB/B-1 1071 Dated 28-12-2022 (Sukkur)	
<b>d</b>	Cost of Non-Schedule Items	
<b>e</b>	Cost of Cartage	
<b>f</b>	Difference of Cost of Material	
	<b>TOTAL OF CIVIL WORKS - A</b>	
<b>2.</b>	<b>PUBLIC HEALTH WORKS</b>	
<b>a</b>	Cost of Schedule Items	
<b>b</b>	Add 20 % Premium on Schedule Items as per Notification (No.CE(B)/PB/B-1 1071 Dated 28-12-2022 (Sukkur)	
<b>c</b>	Cost of Non-Schedule Items	
	<b>TOTAL OF PHE WORKS - B</b>	
<b>3.</b>	<b>ELECTRIC WORKS</b>	
<b>a</b>	Cost of Schedule Items	
<b>b</b>	Add 20 % Premium on Schedule Items as per Notification (No.CE(B)/PB/B-1 1071 Dated 28-12-2022 (Sukkur)	
<b>c</b>	Cost of Non-Schedule Items	
	<b>TOTAL OF ELECTRICAL WORKS - C</b>	
	<b>TOTAL (A+B+C)</b>	
	<b>5% SST</b>	
	<b>GRAND TOTAL</b>	
	<b>PC-I COST</b>	

**CONSTRUCTION OF MAIN GATE & WAITING AREA FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR**

**DETAILED ESTIMATE**

**CIVIL WORKS**

**Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh**

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
1	C-1/18(b)	Excavtion in foundation of Building Bridges and other structures including dagbelling dressing,refilling around structrure with excavated earth Watering and ramming lead upto 5 ft in Ordinary Soil.	%0Cft	3089.75		
2	C-18/92	Providing Anti -termmite treatment by spraying /sprinkling /spreading Neptachlar 0.5% Emulsion as an overall pre - construction treatment in slab type construction under the slab and along attached perches or entrances etc, complete as per directions of Engineer Incharge.	P.Sft	4018.53		
3	C-4/5(i)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering. (Mix 1:4:8)	%Cft	184.88		
4	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Foundation)	P.Cft	572.91		
5	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Ground Floor)	P.Cft	713.24		
6	C-4/6 a-i +6 (d)	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (First Floor)	P.Cft	133.19		
7	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) UPL	P.Cft	225.00		
8	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) G.F	P.Cft	461.50		
9	C-4/6 a-ii +6 (d)	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) F.F	P.Cft	32.00		
10	C-4/8(b)	Fabrication of mild steel reinforcement for cement concrete including cutting,bending, laying in position, making joints and fastenings including cost of binding wire (also includes removal of rust from bars.) Using Tor bars	P.Cwt	166.37		
11	C-5/4-I(e)	Pacca brick work in foundation and plinth in cement sand mortar 1:6.	%Cft	1290.77		
12	C-1/21	Filling, watering and ramming earth in floors with surplus earth from foundation lead upto one chain and lift jupto 5 feet.	%0Cft	1029.92		

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
13	C-1/22	Filling, watering and ramming earth under floor with new earth (Excavated from outside) lead upto one chain and lift upto 5 feet.	%0Cft	2531.37		
14	C-5/5-l(d)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:5	%Cft	898.52		
15	C-5/5-l(c)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:4	%Cft	18.75		
16	C-5/5-l(d) + 6	Pacca brick work in First Floor cement, sand mortar Ratio 1:5	%Cft	340.31		
17	C-5/5-l(d) + 6	Pacca brick work in Second Floor cement, sand mortar Ratio 1:5	%Cft	18.56		
18	C-9/12(b)	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) Ground Floor	%Sft	1810.00		
19	C-9/12(b)+29	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) First Floor	%Sft	606.00		
20	C-9/12(b)+29	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) Second Floor	%Sft	70.00		
21	C-9/12(c)	Cement plaster 1:5 upto 12' height:- c) ¾" (20 mm) thick. (Internal) Ground Floor	%Sft	185.00		
22	C-9/11(c)	Cement plaster 1:4 upto 12' height:- c) ¾" (20 mm) thick (External) G.F	%Sft	1879.94		
23	C-9/19(a)+29	Cement plaster 1:4 upto 12' height:- c) ¾" (20 mm) thick (External) F.F	%Sft	854.50		
24	C-9/19(a)+29	Cement plaster 1:4 upto 12' height:- c) ¾" (20 mm) thick (External) S.F	%Sft	82.00		
25	C-9/10(a)	Cement plaster 3/8" thick under soffit or R.C.C. roof slab only upto 12' height ratio 1:3. Ground Floor	%Sft	773.55		
26	C-9/10(a)+29	Cement plaster 3/8" thick under soffit or R.C.C. roof slab only upto 12' height ratio 1:3. First Floor	%Sft	157.71		
27	C-9/24(c)	Distempering:- New surface:- three coats	%Sft	3602.26		
28	C-5/29	Supplying and filling sand under floor and plugging in walls.	%Cft	108.24		
29	C-4/2	Dry rammed brick or stone ballast 1 1/2" to 2" gauge.	%Cft	108.24		
30	C-4/5(f)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering.(Mix 1:2:4)	%Cft	54.78		
31	C-7/18	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	2.00		
32	C-18/83(a)	Supplying & fixing inposition Aluminium channels framing for hinged doors or Alcop made with 5 mm thick tinted glass glazing (Belgium) and Alpha (Japan) locks l/c handles, stoppers etc. (a) Deluxe model (White)	P.Sft	98.00		
33	C-17/2+3	Fabrication of heavy steel work with angles, tees, flat iron, round iron and sheet iron for making trusses, girders, tands etc. including cutting, tanks etc. including cutting, drilling rivetting, handling assembling and fixing including erection in position. (Main Gates + Side Gates)	P.Cwt	334.24		
34	C-11/5-(c)	Preparing surface and painting of doors and windows any type, (including edges).Three Coats.	%Sft	1152.00		

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
35	C-18/84(a)	Supplying & fixing in position Aluminium channels framing for sliding windows & ventilators of Alcop made with 5 mm thick tinted glass glazing (Belgium) & Aluminium fly screen l/c handles stoppers & locking arrangement etc. complete. (a) Deluxe model (White).	P.Sft	104.00		
36	C-17/26	Supplying & fixing in position iron/steel grill of 3/4" x 1/4" size flat iron of approved design including painting 3 coats etc. complete (weight not to be less than 3.7 Lbs./Sq . Foot of finished grill).	P.Sft	104.00		
37	C-18/69(a)	Damp Proof course with cement sand Ratio (1: 2) mixed with dampo b) 1-1/2" thick	%Sft	3.75		
38	C-7/13	Two coats of bitumen laid hot using 34 Lbs for % Sft. Ober roof and blinded with sand at one Cft. Per % Sft.	%Sft	1291.53		
39	C-7/38	Providing and laying single per layer of polythene sheet 0.13 mm thick for water proffing as per specification and instructions of Engineer incharge.	P.Sft	1790.08		
40	C-4/7(ii)	Extra cost due to use of Hi Bond Pre-packaged Polymer Modified mortar (DHPMM) as an admixture in concrete mix for increasing durability, to be used in concreting, flooring, block/ brick/ stone masonry or plastering as % by weight of cement.	P.Kg	204.62		
41	C-8/74	Providing & fixing cement paving blocks flooring having size of 197 x 97 x 80 (mm) of city / quddra / cobble shape with pigmented having strength b/w 5000 psi to 8500 psi l/c filling the joints with hill sand and laying in specified manner / patter and design etc: complete.	P.Sft	750.00		
42	C-8/50	Mosaic tiles of white cement 12"x12"x1" of approved shade laid flat in 1:2 white cement mortar over a bed of 3/4" thick lime mortar 1:2.	%Sft	268.00		
43	C-8/41	Mossaic dado or skirting one apart of white cement and two parts of marble chips laid over 1/2" thick plaster 1:3 complete with finishing 1/2"thick.	%Sft	52.47		
44	C-9/38A+38 B	Preparing the surface and painting with weather coat l/c rubbing the surface with rubbing brick/ sand Paper, filling the voids with chalk/ plaster of Paris and then painting with weather coat of approved make. (New Coat + subsequent Coat)	%Sft	1764.44		
45	C-7/40	Khapriel (Manglore ) Tiles 15" x 8" x 1-1/2" of approved designed/ shape laid flat in 1:2 gray cement mortar over a bed of 3/4" thick cement Mortar (1:2)	%Sft	1116.50		
46	C-7/5	Single layer of tiles 9" x4 1/2" x 2" laid over 4" earth 1" mud plaster without Bhoosa grouted with cement sand 1:3 on top of R.C.C slab provide with 34 Lbs. Bitumen coating sand blinded.	%Sft	498.55		
<b>Total of SOR ITEMS</b>						

**CONSTRUCTION OF MAIN GATE & WAITING AREA FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR****DETAILED ESTIMATE****CIVIL WORKS****Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh**

<b>Sr. No.</b>	<b>Item No.</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
1	C-18/83(a)	Supplying & fixing in position Aluminium channels framing for hinged doors or Alcop made with 5 mm thick tinted glass glazing (Belgium) and Alpha (Japan) locks l/c handles, stoppers etc. (a) Deluxe model (White)	P.Sft	98.00		
2	C-18/84(a)	Supplying & fixing in position Aluminium channels framing for slidding windows & ventilators of Alcop made with 5 mm thick tinted glass glazing (Belgium) & Aluminium fly screen l/c handles stoppers & locking arrangement etc. complete. (a) Deluxe model (White).	P.Sft	104.00		
3	C-8/74	Providing & fixing cement paving blocks flooring having size of 197 x 97 x 80 (mm) of city / quddra / cobble shape with pigmented having strength b/w 5000 psi to 8500 psi l/c filling the joints with hill sand and laying in specified manner / patter and design etc: complete.	P.Sft	750.00		
4	C-8/50	Mosaic tiles of white cement 12"x12"x1" of approved shade laid flat in 1:2 white cement mortar over a bed of 3/4" thick lime mortar 1:2.	%Sft	268.00		
5	C-8/41	Mossaic dado or skirting one apart of white cement and two parts of marble chips laid over 1/2" thick plaster 1:3 complete with finishing 1/2"thick.	%Sft	52.47		
		<b>Add 5 % Premium on Total of SOR ITEMS as per Notification (No.CE(B)/PB/B-1 1071 Dated 28-12-2022 (SUUKUR)</b>			<b>5% Total</b>	

**CONSTRUCTION OF MAIN GATE & WAITING AREA FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR**

**DETAILED ESTIMATE**

**CIVIL WORKS**

**Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh**

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
1	C-1/18(b)	Excavtion in foundation of Building Bridges and other structures including dagbelling dressing,refilling around structrue with excavated earth Watering and ramming lead upto 5 ft in Ordinary Soil.	%0Cft	3089.75		
2	C-18/92	Providing Anti -termmite treatment by spraying /sprinkling /spreading Neptachlar 0.5% Emulsion as an overall pre - construction treatment in slab type construction under the slab and along attached perches or entrances etc, complete as per directions of Engineer Incharge.	P.Sft	4018.53		
3	C-4/5(i)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering.(Mix 1:4:8)	%Cft	184.88		
4	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Foundation)	P.Cft	572.91		
5	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Ground Floor)	P.Cft	713.24		
6	C-4/6 a-i +6 (d)	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (First Floor)	P.Cft	133.19		
7	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) UPL	P.Cft	225.00		
8	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) G.F	P.Cft	461.50		
9	C-4/6 a-ii +6 (d)	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) F.F	P.Cft	32.00		
10	C-4/8(b)	Fabrication of mild steel reinforcement for cement concrete including cutting,bending, laying in position, making joints and fastenings including cost of binding wire (also includes removeal of rust from bars.) Using Tor bars	P.Cwt	166.37		
11	C-5/4-l(e)	Pacca brick work in foundation and plinth in cement sand mortar 1:6.	%Cft	1290.77		
12	C-1/21	Filling, watering and ramming earth in floors with surplus earth from foundation lead upto one chain and lift jupto 5 feet.	%0Cft	1029.92		

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
13	C-1/22	Filling, watering and ramming earth under floor with new earth (Excavated from outside) lead upto one chain and lift upto 5 feet.	%0Cft	2531.37		
14	C-5/5-l(d)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:5	%Cft	898.52		
15	C-5/5-l(c)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:4	%Cft	18.75		
16	C-5/5-l(d) + 6	Pacca brick work in First Floor cement, sand mortar Ratio 1:5	%Cft	340.31		
17	C-5/5-l(d) + 6	Pacca brick work in Second Floor cement, sand mortar Ratio 1:5	%Cft	18.56		
18	C-9/12(b)	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) Ground Floor	%Sft	1810.00		
19	C-9/12(b)+29	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) First Floor	%Sft	606.00		
20	C-9/12(b)+29	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) Second Floor	%Sft	70.00		
21	C-9/12(c)	Cement plaster 1:5 upto 12' height:- c) ¾" (20 mm) thick. (Internal) Ground Floor	%Sft	185.00		
22	C-9/11(c)	Cement plaster 1:4 upto 12' height:- c) ¾" (20 mm) thick (External) G.F	%Sft	1879.94		
23	C-9/19(a)+29	Cement plaster 1:4 upto 12' height:- c) ¾" (20 mm) thick (External) F.F	%Sft	854.50		
24	C-9/19(a)+29	Cement plaster 1:4 upto 12' height:- c) ¾" (20 mm) thick (External) S.F	%Sft	82.00		
25	C-9/10(a)	Cement plaster 3/8" thick under soffit or R.C.C. roof slab only upto 12' height ratio 1:3. Ground Floor	%Sft	773.55		
26	C-9/10(a)+29	Cement plaster 3/8" thick under soffit or R.C.C. roof slab only upto 12' height ratio 1:3. First Floor	%Sft	157.71		
27	C-9/24(c)	Distempering:- New surface:- three coats	%Sft	3602.26		
28	C-5/29	Supplying and filling sand under floor and plugging in walls.	%Cft	108.24		
29	C-4/2	Dry rammed brick or stone ballast 1 1/2" to 2" gauge.	%Cft	108.24		
30	C-4/5(f)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering.(Mix 1:2:4)	%Cft	54.78		
31	C-7/18	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	2.00		
32	C-17/2+3	Fabrication of heavy steel work with angles, tees, flat iron, round iron and sheet iron for making trusses, girders, tands etc. including cutting, tanks etc. including cutting, drilling rivetting, handling assembling and fixing including erection in position. (Main Gates + Side Gates)	P.Cwt	334.24		
33	C-11/5-(c)	Preparing surface and painting of doors and windows any type, (including edges).Three Coats.	%Sft	1152.00		
34	C-17/26	Supplying & fixing in position iron/steel grill of 3/4" x 1/4" size flat iron of approved design including painting 3 coats etc. complete (weight not to be less than 3.7 Lbs./Sq . Foot of finished grill).	P.Sft	104.00		
35	C-18/69(a)	Damp Proof course with cement sand Ratio (1: 2) mixed with dampo b) 1-1/2" thick	%Sft	3.75		

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
36	C-7/13	Two coats of bitumen laid hot using 34 Lbs for % Sft. Ober roof and blinded with sand at one Cft. Per % Sft.	%Sft	1291.53		
37	C-7/38	Providing and laying single per layer of polythene sheet 0.13 mm thick for water proffing as per specification and instructions of Engineer incharge.	P.Sft	1790.08		
38	C-4/7(ii)	Extra cost due to use of Hi Bond Pre-packaged Polymer Modified mortar (DHPMM) as an admixture in concrete mix for increasing durability, to be used in concreting, flooring, block/brick/ stone masonry or plastering as % by weight of cement.	P.Kg	20461.73		
39	C-9/38A+38 B	Preparing the surface and painting with weather coat l/c rubbing the surface with rubbing brick/ sand Paper, filling the voids with chalk/ plaster of Paris and then painting with weather coat of approved make. (New Coat + subsequent Coat)	%Sft	1764.44		
40	C-7/40	Khapriel (Manglore ) Tiles 15" x 8" x 1-1/2" of approved designed/ shape laid flat in 1:2 gray cement mortar over a bed of 3/4" thick cement Mortar (1:2)	%Sft	1116.50		
41	C-7/5	Single layer of tiles 9" x4 1/2" x 2" laid over 4" earth 1" mud plaster without Bhoosa grouted with cement sand 1:3 on top of R.C.C slab provide with 34 Lbs. Bitumen coating sand blinded.	%Sft	498.55		
		<b>Add 10 % Premium on Total of SOR ITEMS as per Notification (No.CE(B)/PB/B-1 1071 Dated 28-12-2022 (SUKKUR)</b>			<b>10% Total</b>	

**CONSTRUCTION OF MAIN GATE AT THE SHAIKH AYAZ UNIVERSITY, SHIKARPUR.**

**ENGINEER'S COST ESTIMATE**

**PUBLIC HEALTH WORKS**

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
		<b>SANITARY FIXTURES AND FITTINGS</b>				
1	V-B (Ch 1/5)	Providing and fixing European type white glazed earthen ware wash down W.C. pan complete with and l/c the cost of white/black plastic seat (Best quality) and lid with C.P.brass hineges and buffers, 3 gallons white glazed earthen ware low level foushing cistern with siphon fitting 1-1/2" dia white porcelain enamelled fluish bend 3/4" dia and making requisite number of holes in walls, plinth and floor for pipe connections and making good in cement concrete 1:2:4.	Each	1.00		
2	V-B (Ch 1/2-A ii)	Providing and Fixing squatting type white glazed earthen ware w.c pan with front fresh inlet & complete with including the cost of flushing cistern with internal fitting and flush pipe with bend and making requisite number of holes in walls plinth & floor for pipe connection and making good in cement concrete 1:2:4. (A) W.C pan 23" & low level earthen ware flush tank 3 gallons. (ii) with 4" dia white glazed earthen ware trap and plastic thumble.	Each	1.00		
3	V-B (Ch 6/19 (a))	Providing and fixing CP Muslim shower with double bib cock & ring pipe etc complete.	Each	2.00		
4	V-B (Ch 2/5)	Providing and fixing soap tray earthen ware with c.p screws etc.complete.	Each	2.00		
5	V-B (Ch 2/1 (iii-b))	Providing and fixing chrome plated brass towel rail complete with brackets fixing with 1" long c.p brass screws. (iii) Towel Rail 24" long (b) 3/4" dia round or square (Superior Quality)	Each	1.00		
6	V-B (Ch 2/2 (b))	Providing and fixing c.p brass toilet paper holder of standard size with chrome plated brass brackets complete (Similar to twyforde design No 1108) (b) Superior Quality	Each	2.00		
7	V-B (Ch 1/22)	Providing and fixing (1/2") dia, lead connection complete with a (1/2") dia brass stop cock, two brass nuts & lining jointed to lead pipe with plumber wiped solder joints (1/2" lead pipe to be of not less than 4lbs per lineal yard.	Each	6.00		
8	V-B (Ch 10/1 (i))	Providing and fixing 6" x 4" C.C gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & 1/2" thick cement plaster (1:3) to the karb. C.I grating 6" x 6" C.I cover and frame 12" x 12" (inside) etc complete. Earthan ware glazed Gully trap 6" x 6" x 4" with C.I cover & Frame.	Each	2.00		
9	V-B (Ch 10/2 (e))	Providing R.C.C. pipe with collar class 'B' and digging the trenches to required depth & fixing inposition including cutting, fitting and jointing with maxphalt composition & cement mortar and testing with water pressure a head of 4 feet above the top of the highest pipe & refilling with excavating shaft. i) 310 mm (12") i/d	P.Rft	100.00		
10	IV-III-A (1)	Excavation for pipeline in trechches, and pits in soft soils i/c trimming and dressing sides to true alignment and shape levelling of beds of trenches to correct level and grade, cutting joint and holes and disposal of surplus earth within a one chain as directed by engineer incharge.Providing fence guards, lights, flags and temperory crossings for non-vehicular traffic where ever required lift upto 5ft. (1.52 m) and lead upto one chain (30.5 m).	1000 Cft	900.00		
11	Ch/1/13 (d)	Earth work compaction (Soft, ordinary or hard soil). (d) Ramming earth work (All types of soil).	1000 Cft	900.00		
12	Ch/1/9 (a)	Rehandling of earth work. (a) Lead upto a single throw of Kassi, Phawrah or a = Shovel.	1000 Cft	900.00		
13	V-B (Ch 6/4 (iv))	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flabged ends with rubber washing.(iv) 1-1/4" (Light pattern)	Each	1.00		

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
14	V-B (Ch 6/4 (v))	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flabged ends with rubber washing.(v) 1-1/2" (Light pattern)	Each	1.00		
15		<b>MANHOLE</b>				
16	VI-B (ii) P (1)	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" (1067 mm) depth waith walls of BB in cement sand mortar 1:3 cement plastered 1:3, 1/2" thick. Inside of walls and 1" (25 mm) thick over benching and channel i/c fixing C.I manhole cover with frame of clear opening 1-1/2' x 1-1/2' (457 x 457mm) of 1.75 cwt. (88.9 Kg) embaded in plain C.C 1:2:4 and fixing 1"(25mm) dia MS steps 6" (150 mm) wide projecting 4" (102mm) from the face of wall at 12" (305mm) C/C duly painted etc. Complete as per Standard specification and drawing.	Job	3.00		
17	SOR (Water supply & Sanitary works) Ch 1-13	Providing & fixing 22"x 16" lavatory basin in white glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6 inches built into walls, painted white in 2 coats after a primary coat of red lead paint, a pair of 1/2" rubber plug & chrome brass waste of approved pattern 1-1/4" dia malleable iron or CP brass trap, malleable iron or brass unions and making requisite number of holes in walls plinth and floor for pipe connection &making good in cement concrete 1:2:4 (Foreign or Equivalent)	Each	2.00		
18	SOR (Water supply & Sanitary works) Ch 6-14	Providing and fixing, wash hand basin mixture of superior quality with CP head 1/2' dia.	Each	2.00		
19	SOR (Water supply & Sanitary works) Ch 1-20	Providing and fixing 6" x 2" or 6" x 3" C.I floor trap of the approved selt cleaning design with a C.I screwed down gratting without a vent arm complete with & i/c making requisite number of holes in walls, plinth & floor for pipe connections & makinggood cement concrete 1:2:4.	Each	4.00		
20	(Water supply & Sanitary works) Ch 1-26	Providing and fixing 24"x 18" bavelled edge mirrorof belgium glass complete with 1/8" thick hard board and c.p screws fixed to wooden pleat. ( Superior Quality)	Sft	2.00		
<b>Total of SOR ITEMS</b>						

**CONSTRUCTION OF MAIN GATE AT THE SHAIKH AYAZ UNIVERSITY, SHIKARPUR.**

**ENGINEER'S COST ESTIMATE**

**PUBLIC HEALTH WORKS**

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
		<b>SANITARY FIXTURES AND FITTINGS</b>				
1	V-B (Ch 1/5)	Providing and fixing European type white glazed earthen ware wash down W.C. pan complete with and l/c the cost of white/black plastic seat (Best quality) and lid with C.P.brass hineges and buffers, 3 gallons white glazed earthen ware low level foushing cistern with siphon fitting 1-1/2" dia white porcelain enamelled fluish bend 3/4" dia and making requisite number of holes in walls, plinth and floor for pipe connections and making good in cement concrete 1:2:4.	Each	1.00		
2	V-B (Ch 1/2-A ii)	Providing and Fixing squatting type white glazed earthen ware w.c pan with front fresh inlet & complete with including the cost of flushing cistern with internal fitting and flush pipe with bend and making requisite number of holes in walls plinth & floor for pipe connection and making good in cement concrete 1:2:4. (A) W.C pan 23" & low level earthen ware flush tank 3 gallons. (ii) with 4" dia white glazed earthen ware trap and plastic thumble.	Each	1.00		
3	V-B (Ch 6/19 (a))	Providing and fixing CP Muslim shower with double bib cock & ring pipe etc complete.	Each	2.00		
4	V-B (Ch 2/5)	Providing and fixing soap tray earthen ware with c.p screws etc.complete.	Each	2.00		
5	V-B (Ch 2/1 (iii-b))	Providing and fixing chrome plated brass towel rail complete with brackets fixing with 1" long c.p brass screws. (iii) Towel Rail 24" long (b) 3/4" dia round or square (Superior Quality)	Each	1.00		
6	V-B (Ch 2/2 (b))	Providing and fixing c.p brass toilet paper holder of standard size with chrome plated brass brackets complete (Similar to twyford's design No 1108) (b) Superior Quality	Each	2.00		
7	V-B (Ch 1/22)	Providing and fixing (1/2") dia, lead connection complete with a (1/2") dia brass stop cock, two brass nuts & lining jointed to lead pipe with plumber wiped solder joints (1/2" lead pipe to be of not less than 4lbs per lineal yard.	Each	6.00		
8	V-B (Ch 10/1 (i))	Providing and fixing 6" x 4" C.C gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & 1/2" thick cement plaster (1:3) to the karb. C.I grating 6" x 6" C.I cover and frame 12" x 12" (inside) etc complete. Earthan ware glazed Gully trap 6" x 6" x 4" with C.I cover & Frame.	Each	2.00		
9	V-B (Ch 10/2 (e))	Providing R.C.C. pipe with collar class 'B' and digging the trenches to required depth & fixing inposition including cutting, fitting and jointing with maxphalt composition & cement mortar and testing with water pressure a head of 4 feet above the top of the highest pipe & refilling with excavating shaft. i) 310 mm (12") i/d	P.Rft	100.00		
10	IV-III-A (1)	Excavation for pipeline in trechches, and pits in soft soils i/c trimming and dressing sides to true alignment and shape levelling of beds of trenches to correct level and grade, cutting joint and holes and disposal of surplus earth within a one chain as directed by engineer incharge.Providing fence guards, lights, flags and temperory crossings for non-vehicular traffic where ever required lift upto 5ft. (1.52 m) and lead upto one chain (30.5 m).	1000 Cft	900.00		
11	Ch/1/13 (d)	Earth work compaction (Soft, ordinary or hard soil). (d) Ramming earth work (All types of soil).	1000 Cft	900.00		
12	Ch/1/9 (a)	Rehandling of earth work. (a) Lead upto a single throw of Kassi, Phawrah or a = Shovel.	1000 Cft	900.00		
13	V-B (Ch 6/4 (iv))	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flabged ends with rubber washing.(iv) 1-1/4" (Light pattern)	Each	1.00		
14	V-B (Ch 6/4 (v))	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flabged ends with rubber washing.(v) 1-1/2" (Light pattern)	Each	1.00		
15		<b>MANHOLE</b>				

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
16	VI-B (ii) P (1)	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" (1067 mm) depth with walls of BB in cement sand mortar 1:3 cement plastered 1:3, 1/2" thick. Inside of walls and 1" (25 mm) thick over benching and channel i/c fixing C.I manhole cover with frame of clear opening 1-1/2' x 1-1/2' (457 x 457mm) of 1.75 cwt. (88.9 Kg) embaded in plain C.C 1:2:4 and fixing 1"(25mm) dia MS steps 6" (150 mm) wide projecting 4" (102mm) from the face of wall at 12" (305mm) C/C duly painted etc. Complete as per Standard specification and drawing.	Job	3.00		
17	SOR (Water supply & Sanitary works) Ch 1-13	Providing & fixing 22"x 16" lavatory basin in white glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6 inches built into walls, painted white in 2 coats after a primary coat of red lead paint, a pair of 1/2" rubber plug & chrome brass waste of approved pattern 1-1/4" dia malleable iron or CP brass trap, malleable iron or brass unions and making requisite number of holes in walls plinth and floor for pipe connection & making good in cement concrete 1:2:4 (Foreign or Equivalent)	Each	2.00		
18	SOR (Water supply & Sanitary works) Ch 6-14 (b)	Providing and fixing, wash hand basin mixture of superior quality with CP head 1/2' dia.	Each	2.00		
19	SOR (Water supply & Sanitary works) Ch 1-20	Providing and fixing 6" x 2" or 6" x 3" C.I floor trap of the approved self cleaning design with a C.I screwed down grating without a vent arm complete with & i/c making requisite number of holes in walls, plinth & floor for pipe connections & making good cement concrete 1:2:4.	Each	4.00		
20	SOR (Water supply & Sanitary works) Ch 1-26 (b)	Providing and fixing 24"x 18" bavelled edge mirror of belgium glass complete with 1/8" thick hard board and c.p screws fixed to wooden pleat. ( Superior Quality)	Sft	2.00		
<b>Add 20 % Premium on Total of SOR ITEMS as per Notification (No.CE(B)/PB/B-1 1071 Dated 28-12-2022 (SUKKUR)</b>						

**CONSTRUCTION OF MAIN GATE AT THE SHAIKH AYAZ UNIVERSITY, SHIKARPUR.****ENGINEER'S COST ESTIMATE****PUBLIC HEALTH WORKS**

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
1	NSI	UPVC Multi Floor Trap (110x75mm) including strainer; making required number of connections; breaking concrete or masonry work & then making it good; etc. of approved make.	Each	2.00		
2	NSI	Providing, Fixing Dadex Class D or equivalent UPVC clean out with cover making requisite number of holes in walls, plinth or floor for pipe connection and making good the same as necessary to the structure complete including, rubber gasket and clamp.	Each	1.00		
3	NSI	Providing and fitting "P" trap:ii) 10 cm (4") glazed.	Each	2.00		
4		<b>WATER SUPPLY PIPES AND FITTINGS</b>				
		P/F Polypropylene Random copolymer (PPRC) PN-20 pipe with fusion / threaded joints including the cost of all specials/ accessories i.e elbow, bend, sockets etc. (Popular /Beta or equivalent) complete in all respect.				
	i	1" (25 mm) dia.	Rft	70.00		
	ii	2" (50 mm) dia.	Rft	55.00		
	iii	3/4" (20 mm) dia.	Rft	95.00		
5		<b>SOIL, WASTE, VENTILATING PIPES &amp; FITTINGS</b>				
		Providing , fixing and testing UPVC Nikasi type "B" with solution of same quality make including the cost of all specials/ accessories i.e elbow, bend, sockets etc. (Popular/Beta or equivalent) complete in all respect.				
	i	100 mm (4") dia.	Rft	70.00		
	ii	80 mm (3") dia.	Rft	50.00		
		<b>VALVES</b>				
6	NSI	Providing and fixing handle valves 16bars or equivalent complete in all respects as approved by the engineer incharge.				
	i	3/4 inch	Each	2.00		
	ii	1/2 inch	Each	2.00		
<b>Total of Non SOR ITEMS</b>						

**CONSTRUCTION OF MAIN GATE & WAITING AREA FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR**

**ENGINEER'S COST ESTIMATE**

**ELECTRICAL WORKS**

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
<b>1</b>		<b><u>DISTRIBUTION BOARDS</u></b>				
		Supply at site, fabrication, installation, testing and commissioning of Distribution Board (DB) , made of sheet steel 16 SWG, degreased and derusted, with 2 coats of antirust paint, 2 coats of powder coated paint of approved colour, protection classification IP-44, totally enclosed indoor floor mounting cubicle type in free standing design, with hinged door, handle including cost of all auxiliaries, internal wiring, designation lables on MCCBS, grounding bar suitable for system Voltage 440V, 50 Hz, 3 Phase and neutral bus bars of 99.9% electrolytic copper, including cost of cable terminal blocks wiring from breakers, brass cable glands, all accessories complete in all respects metion in BOQ or not required for performing completely. All incoming and outgoing breakers shall be accessible only by opening the front door having further M.S. sheet cover gaskets shall also be provided where necessary. Panel should be compeltely made in certified factory. ie PEL, Green T & D, Mazcorp engineering or equivalent as per instructions by engineer incharge.				
		All MCCBs shall be suitable to operate without any derating at 40°C ambient temperature and shall be of one make only. The sides of MDB shall also have louvers at bottom and top on sides of panel for hot air exhaust, wire mesh etc. The back of the panel shall be lockable door instead of bolted and shall conform to single line diagram. item should be of ABB, Schneider or equivalent as per instuctions by engineer incharge				
		<b><u>INCOMING</u></b>				
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1		
	ELECT SH-XV(270)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3		
	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3		
		<b><u>OUTGOING</u></b>				
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	10		
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50 & 60 amps TP(XES-100CB(CS)) on prepared board as required.	Per No.	1		
<b>2</b>		<b><u>WIRING IN CONCEALED CONDUITS</u></b>				
	i)	<b><u>Distribution board to Switch</u></b>				
		Wiring of light circuit from Distribution Board to switch,with Three nos. single core 2.5 Sqmm PVC insulated 450/750 volts grade stranded copper conductor cables in concealed PVC conduits (conduits partly shared) including PVC conduit, and conduit accessories etc. Cable should be of Newage, Fast cable, copper gate or equivalent and conduit should be of Solo,popular,easyfit or equivalent as per instructions by engineer incharge				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	120		
	ii)	<b><u>Switch to light point</u></b>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Wiring from switch to light or fan point with 3 nos. single core 1.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories, etc. (conduit partly shared).				
a	ELECT SH-II(124)	Wiring of Light and fan point with 3.29 Pvc insulated wire in 20mm (3/4") dia PVC conduit recessed in the wall or column as required.	Per/Point	17		
		Point to point wiring				
b	ELECT SH-I(22)	Providing and laying (main or Sub Main Pvc insulated with 3-3.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	36		
iii)		<b>Switch to Switch</b>				
		Wiring from switch to switch with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories, etc. (conduit partly shared).				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	30		
iv)		<b>Distribution board to General Purpose ( 5A/13A) socket</b>				
		Wiring of circuit from Distribution Board to 5A/13A ,230Volts with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts graded , 2&3 pin switched socket, stranded copper conductor cables in concealed PVC conduit, including conduit accessories, etc (conduit partly shared)				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	80		
v)		<b>Socket to Socket</b>				
		Wiring from 5 Amps, 2&3 pin socket to socket with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade solid or stanerd copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories, etc complete. (conduit partly shared)				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	24		
<b>Total of SOR ITEMS</b>						

**CONSTRUCTION OF MAIN GATE & WAITING AREA FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR**

**ENGINEER'S COST ESTIMATE**

**ELECTRICAL WORKS**

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
<b>1</b>		<b>DISTRIBUTION BOARDS</b>				
		Supply at site, fabrication, installation, testing and commissioning of Distribution Board (DB) , made of sheet steel 16 SWG, degreased and derusted, with 2 coats of antirust paint, 2 coats of powder coated paint of approved colour, protection classification IP-44, totally enclosed indoor floor mounting cubicle type in free standing design, with hinged door, handle including cost of all auxiliaries, internal wiring, designation lables on MCCBS, grounding bar suitable for system Voltage 440V, 50 Hz, 3 Phase and neutral bus bars of 99.9% electrolytic copper, including cost of cable terminal blocks wiring from breakers, brass cable glands, all accessories complete in all respects metion in BOQ or not required for performing completely. All incoming and outgoing breakers shall be accessible only by opening the front door having further M.S. sheet cover gaskets shall also be provided where necessary. Panel should be compeltely made in certified factory. ie PEL, Green T & D, Mazcorp engineering or equivalent a per instructions by engineer incharge..				
		All MCCBs shall be suitable to operate without any derating at 40°C ambient temperature and shall be of one make only. The sides of MDB shall also have louvers at bottom and top on sides of panel for hot air exhaust, wire mesh etc. The back of the panel shall be lockable door instead of bolted and shall conform to single line diagram. item should be of ABB, Schneider or equivalent as per instnuctions by engineer incharge				
		<b>INCOMING</b>				
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1		
	ELECT SH-XV(270)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3		
	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3		
		<b>OUTGOING</b>				
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	10		
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50 & 60 amps TP(XES-100CB(CS)) on prepared board as required.	Per No.	1		
<b>2</b>		<b>WIRING IN CONCEALED CONDUITS</b>				
	i)	<b>Distribution board to Switch</b>				
		Wiring of light circuit from Distribution Board to switch,with Three nos. single core 2.5 Sqmm PVC insulated 450/750 volts grade stranded copper conductor cables in concealed PVC conduits (conduits partly shared) including PVC conduit, and conduit accessories etc. Cable should be of Newage, Fast cable, copper gate or equivalent and conduit should be of Solo,popular,easyfit or equivalent as per instructions by engineer incharge				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	120		
	ii)	<b>Switch to light point</b>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Wiring from switch to light or fan point with 3 nos. single core 1.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories, etc. (conduit partly shared).				
a	ELECT SH-II(124)	Wiring of Light and fan point with 3.29 Pvc insulated wire in 20mm (3/4") dia PVC conduit recessed in the wall or column as required.	Per/Point	17		
		Point to point wiring				
b	ELECT SH-I(22)	Providing and laying (main or Sub Main Pvc insulated with 3-3.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	36		
iii)		<b>Switch to Switch</b>				
		Wiring from switch to switch with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories, etc. (conduit partly shared).				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	30		
iv)		<b>Distribution board to General Purpose ( 5A/13A) socket</b>				
		Wiring of circuit from Distribution Board to 5A/13A ,230Volts with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts graded , 2&3 pin switched socket, stranded copper conductor cables in concealed PVC conduit, including conduit accessories, etc (conduit partly shared)				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	80		
v)		<b>Socket to Socket</b>				
		Wiring from 5 Amps, 2&3 pin socket to socket with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade solid or stanerd copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories, etc complete. (conduit partly shared)				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	24		
		<b>Add 20 % Premium on Total of SOR ITEMS as per Notification (No.CE(B)/PB/B-1 1071 Dated 28-12-2022 (SUKKUR)</b>				

**CONSTRUCTION OF MAIN GATE & WAITING AREA FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR**

**ENGINEER'S COST ESTIMATE**

**ELECTRICAL WORKS**

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
<b>1</b>		<b><u>DISTRIBUTION BOARDS</u></b>				
		Supply at site, fabrication, installation, testing and commissioning of Distribution Board (DB) , made of sheet steel 16 SWG, degreased and derusted, with 2 coats of antirust paint, 2 coats of powder coated paint of approved colour, protection classification IP-44, totally enclosed indoor floor mounting cubicle type in free standing design, with hinged door, handle including cost of all auxiliaries, internal wiring, designation lables on MCCBS, grounding bar suitable for system Voltage 440 V, 50 Hz, 3 Phase and neutral bus bars of 99.9% electrolytic copper, including cost of cable terminal blocks wiring from breakers, brass cable glands, all accessories complete in all respects metion in BOQ or not required for performing completely. All incoming and outgoing breakers shall be accessible only by opening the front door having further M.S. sheet cover gaskets shall also be provided where necessary. Panel should be compeltely made in certified factory. ie PEL, Green T & D, Mazcorp engineering or equivalent a per instructions by engineer incharge..				
		All MCCBs shall be suitable to operate without any derating at 40°C ambient temperature and shall be of one make only. The sides of MDB shall also have louvers at bottom and top on sides of panel for hot air exhaust, wire mesh etc. The back of the panel shall be lockable door instead of bolted and shall conform to single line diagram. item should be of ABB, Schneider or equivalent as per instructions by engineer incharge				
		<b><u>INCOMING</u></b>				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
		05 Nos.copper bus bars 40 Ampere,three phase,Earth and Netural for distrubitions with appropirate size DB BOX	Job	1		
		Each Bus bar is 300*12*2 mm.				
<b>2</b>		<b><u>LIGHT FIXTURES</u></b>				
		Supply, installation, testing and commissioning of following light fittings, ceiling, recessed,wall mounted as per specified fixture. Complete with internal wiring, Grounding terminal , driver complete in all respects. Lights should be of Phillips, ledvance or equivalent				
	i)	20 Watt LED Light Fixture surface/recessed mounted, IP-22 rated	No.	15		
	ii)	10 Watt LED Flood Light surface/recessed mounted	No.	2		
	iii)	10 Watt LED Light Fixture surface/recessed mounted, IP-22 rated	No.	2		
<b>3</b>		<b><u>LT CABLES</u></b>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Supply at site, installation, testing and commissioning of PVC insulated armoured copper conductor cable 600 / 1000 Volt grade (or otherwise mentioned in cable description ) in prelaid conduits / trenches to be installed as per routes shown on drawings including cost of all necessary materials, connections, identification tags, cables lugs properly crimped at both ends for the following sizes complete in all respects. Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the Engineer before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed. Cable should be of Newage, Fast cable, copper gate or equivalent and conduit should be of Solo,popular,easyfit or equivalent as per instructions by engineer incharge				
		Providing and laying (main or Sub Main) Pvc insulated, Pvc sheathed with 4 core copper conductor 600/1000 volts size 16mm2	Rmtr	10		
<b>4</b>		<b>MISCELLANEOUS FITTINGS</b>				
		Supply, installation, testing & commissioning of Ceiling/ Exhaust fan. The ceiling/exhaust fan shall comprise circular fan metallic/ plastic body, metallic fan blades, down rod (if necessary) of suitable dia & length, AC capacitor, internal wiring, terminals all installation & operational accessories as per tender specifications, as per site requirements and as per instructions by the Engineer. make Bilal Switchgear Engineering, GFC, Pak Fan or approved equivalent.				
i)		12 " outer dia exhaust fan with plastic body,fan blades and louvers	No.	2		
ii)		Providing and Fixing of brass ceiling fan 56" (good quality)	No.	4		
<b>5</b>		<b>WIRING ACCESSORIES</b>				
		Supply at site, installation, testing and commissioning of the following wiring accessories, complete in all respects. Made of TJ or legrand, or equivalent				
i)		10 Amps, 250Volts one way, Two gang light control switches including appropriate size concealed Plastic back box.	No.	5		
ii)		10 Amps, 250Volts one way, Six gang light control switches including appropriate size concealed Plastic back box.	No.	1		
iii)		15 Amps, 250Volts, universal 5 in 1 switched socket unit including appropriate size Plastic back box.	No.	7		
iv)		Fan Dimmer 250 watt with switch including appropriate size Plastic back box. with all associated accessories.	No.	4		
v)		Appropriate size of plastic body fan box and ceiling fan rod 24" in length	Nos	4		
vi)		MS BAR for hanging Ceiling fan	Nos	4		
<b>6</b>		<b>GROUNDING SYSTEM</b>				
i)		<b>GROUNDING cable</b>				
		Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 6 mm sq (7/0.044")	rmtr	5		
ii)		<b>Plate type earthing</b>				
		Providing & fixing of Plate type Earthing compressed with execveted hole 6"up 63 feet,GI pipe 2"(50mm)with Tees , Sockets , Endcap of 60 (RFT) Copper Plate of 1/2"x 2"x 48", 2x 70mmsq S/Core copper bare conductor 125 (Rft) Earth Connection Point of 1200 x 50 x 50mm (L x W x T) Inspection Pit of 300 x 300 x 450 mm (L x W x D) completed with all respect	No.	1		
iii)		<b>Grounding Connection Point</b>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Supply of Grounding connecting points consisting of copper plate 300mm long x50mm wide x 6mm thick to be installed, complete with fixing arrangement, brass nuts bolts, washers, lugs, 12.5mm dia. holes to facilitate connections of Incoming copper strips / copper conductors.	Nos.	1		
iv)		<b>Testing and commissioning</b>				
		Testing and commissioning of the earthing system in the presence of site engineer with electronic devices such as megger etc, making so report with after approximating 3 time testing and the grounding ohm must be less than or upto 3 ohms	Nos.	1		
7		<b>CIVIL WORKS</b>				
i)		<b>Trench ( for LT Cable )</b>				
		Labour for excavation and refilling of trench 12" wide, 24" deep 9" sand compaction below and above in preinstalled PVC pipes, ramming watering all necessary material, labour etc, complete in all respect. Actual length of the trench shall be as per site condition and paid accordingly however approximate length of trench is given.	R.Mtr	10		
ii)		<b>Manhole For LT Cable Pulling ( If Required)</b>				
		Construction of manholes to facilitate pulling of cables in trench or conduit as shown on drawing, manholes shall be of the size 24" x 24" x 30" deep with 9" thick wall with cement mortar, internal plaster 1:4, 100mm thick RCC cover for manhole, including cost of all accessories / materials, complete in all respects. (Tentative number of manholes have been provided, however payment shall be made as per actual and as per quantity requirement)	Nos.	1		
<b>Total of Non SOR ITEMS</b>						