



Kenya Power

**PROPOSED CONSTRUCTION OF ELECTRIC
VEHICLE CHARGING STATION IN ELDORET.**

UASIN-GISHU COUNTY.

BILL OF QUANTITIES



Kenya Power

MEASURED WORKS

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>EV CHARGING STATION</u>				
	<u>BILL NO.2 BUILDERS WORKS</u>				
	<u>ELEMENT NO.1 SUBSTRUCTURE WORKS</u> <u>(ALL PROVISIONAL)</u>				
	<u>Site clearance.</u>				
A	Clear site of medium size aggregates, small bushes and grub roots of small trees and cart away.	145	SM		
	<u>Excavations</u>				
	<u>Over-site excavations: 100-200mm</u> <u>Depth, load and deposit as instructed by</u> <u>the project manager.</u>				
B	Remove top soil average 200 mm; load and cart away .	145	SM		
C	Excavate for base for EV charger not exceeding 1.5meters deep.	2	CM		
D	Ditt for bollards and anchorage.	1	CM		
E	Extra-over all excavation for excavating rock irrespective of class.	1	CM		
F	Return, fill-in and rum selected excavated materials around foundations.	28	CM		
G	Remove and cart away surplus excavated materials.	16	CM		
	<u>Diposal of water</u>				
H	Keeping all excavations free from all water including spring or running water.	1	ITEM		
	<u>Filling</u>				
I	Hardcore filling, hand packed, 300mm thick in layers of 150mm maximum thickness.	20	CM		
J	50mm (average) thick quarry dust blinding to surfaces of hardcore.	67	SM		
Carried to Collection.					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Anti-termite treatment.</u>				
A	Premise 200 SC' or other equal and approved anti-termite insecticide treatment with ten years guarantee, applied strictly in accordance with manufacturer's instructions, to tops of fill and foundation walls.	67	SM		
	<u>Plain concrete (1:3:6) in : -</u>				
B	50mm thick blinding under foundations and bases.	7	SM		
	<u>Insitu vibrated reinforced concrete class 25(20mm agregate) 1:2:4 to;</u>				
C	Strip foundation.	3	CM		
D	Bases of charger and anchorage	1	CM		
E	Vertical walling.	1	CM		
F	150mm thick bed.	67	SM		
	<u>Reinforcement</u>				
	<u>High yield mild steel ribbed bars including cutting, bending, spacers, tying wire and fixing; to KS 573:2014 in:-</u>				
G	10mm diameter.	9	KG		
	<u>Fabric; B.S. 4483</u>				
H	Reference A142 mesh weight 2.22 kgs per square meter (measured net - no allowance made for laps(including bends, tying wire and distance blocks.	67	SM		
	<u>Sawn formwork to insitu concrete as described to:-</u>				
I	Sides of bases of charger and anchorages.	3	SM		
J	Edges of ground floor slab; 75 to 150mm wide.	34	LM		
	<u>Damp proofing</u>				
K	Polythene sheet; 1000 gauge, 200mm weltd laps (no allowance made to laps), horizontal; 1 no. layer laid on compacted quarry dust blinding.	67	SM		
Carried to Collection.					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>COLLECTION</u>				
	Brought forward from page 1.				
	Brought forward from page 2.				
TOTAL FOR ELEMENT NO.1 SUBSTRUCTURE WORKS CARRIED TO SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.2 STRUCTURAL STEEL FRAME SUPERSTRUCTURE, ROOF STRUCTURE, ROOF COVERING AND RAINWATER GOODS.</u>				
A	Excavate pits for posts.	6	CM		
B	Mass concrete mix to 110 x 110 x5mm thick SHS post footing and 100mm diameter bollards, 600mm deep.	1	CM		
	<u>The following shed 11.2m long in SHS 110 x 110 x 5mm thick posts; to be fixed in mass concrete to support the roof; average 2600mm above ground level in 50x 50 x 4.5mm thick SHS rafters and 100 x 80 x 7mm thick Z-purlins, welded to rafters, applied with metal primer and painting.</u>				
C	110 x 110 x 5mm thick SHS posts.	24	LM		
D	50 x 50 x 4mm thick SHS in purlins.	78	LM		
E	50 x 50 x 4mm thick SHS in rafters.	22	LM		
F	50 x 50 x 7mm thick SHS in rafters.	30	LM		
G	100 x 80 x 7mm thick SHS in rafters.	98	LM		
H	100mm diameter CHS steel tube for bollards.	3	LM		
I	12mm thick base plates fixed to concrete with provision of bolts	1	SM		
	<u>Roof covering;</u>				
	<u>Galvanised IT4 box profile iron sheets; gauge 28; pre-painted.</u>				
J	Supply and fix IT4 Gauge 28 roofing sheet factory pre-painted fixed in 50 x 50 x 4mm thick SHS in purlins (M.S)to approved standards and color.	66	SM		
	<u>Supply and fix 28 Gauge mild steel sheet welded to gutter stool;apply metal primer and finished with 2 coats of approved 1st quality of silver aluminium paint externally and black bituminous paint internally.</u>				
K	Purpose made box gutter 600mm girth.	7	SM		
Carried to Collection.					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	25x25x1.5mm steel SHS stools welded to rafters at 1.5m centers and painted to match the existing.	11	LM		
B	Extra over for stopped ends.	2	NO		
C	Ditto for 100mm diameter holes in gutter outlets and projection.	2	NO		
	<u>Down pipes.</u>				
D	150mm Diameter hollow section black pipe grade A well secured to steel columns with 3mm thick steel brackets at 600mm centers.	5	LM		
E	Extra over for swan neck.	2	NO		
Carried to Collection.					
<u>COLLECTION</u>					
Brought forward from page 4.					
Brought forward from page above.					
TOTAL FOR ELEMENT NO.2 STRUCTURAL STEEL FRAME SUPERSTRUCTURE, ROOF STRUCTURE, ROOF COVERING AND RAINWATER GOODS CARRIED TO SUMMARY.					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.3 CONCRETE PAVING.</u>				
A	Excavate soil average 300 mm; load and cart away .	23	CM		
B	Hardcore filling in making up levels, hand packed, 300mm thick in layers of 150mm maximum thickness; compacting in 10ton roller; all to approval.	23	CM		
	<u>Kerb stones.</u>				
C	125 x 255 x 914mm Precast concrete (class 20) half battered kerb laid on and including 450 x 100mm plain concrete (1:3:6) foundation haunched up on one side including all necessary excavations and formwork.	47	LM		
D	Ditto but flush kerbs.	25	LM		
E	Ditto but shallow drains size 460 x 390 100mm laid on and including plain concrete (1:3:6) foundation; including all necessary excavations and formwork.	24	LM		
F	Provide and spread 50mm sand/quarry dust, well compacted;to receive paving blocks.	78	SM		
G	Provide, lay and joint heavy duty precast concrete paving blocks (80mm thick, Minimum strength 49 N/mm ²) on the 50mm river sand/quarry dust bedding. Apply river sand to jointings and on top of the paving blocks,compact entire paving in 10 tonne mechanical compactor and tidy the surface.	78	SM		
TOTAL FOR ELEMENT NO.3 CONCRETE PAVING CARRIED TO SUMMARY.					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.4 PERIMETER WALL.</u>				
A	Excavate for strip foundation not exceeding 1.5 meters deep.	49	CM		
B	Excavate for column bases not exceeding 1.5meters deep.	38	CM		
C	Extra-over all excavation for excavating rock irrespective of class.	2	CM		
D	Level bottom of foundations to receive blinding.	26	SM		
E	Return, fill-in and rum selected excavated materials around foundations.				
F	Remove and cart away surplus excavated materials.	15	CM		
	<u>Diposal of water</u>				
G	Keeping all excavations free from all water including spring or running water.	1	ITEM		
	<u>Planking and strutting</u>				
H	Uphold the sides of all excavations.	1	ITEM		
	<u>Plain concrete (1:3:6) in : -</u>				
I	50mm thick blinding under foundations and bases.	26	SM		
	<u>Insitu vibrated reinforced concrete class 25(20mm agregate) 1:2:4 to;</u>				
J	Strip foundation.	3	CM		
K	Column bases.	2	CM		
L	Vertical columns.	1	CM		
	<u>Reinforcement</u>				
	<u>High yield mild steel ribbed bars including cutting, bending, spacers, tying wire and fixing; to KS 573:2014 in:-</u>				
M	8mm diameter.	46	KG		
N	10mm diameter.	67	KG		
Carried to Collection.					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	12mm diameter. <u>Sawn formwork to insitu concrete as described to:-</u>	160	KG		
B	Sides of strip foundation.	11	SM		
C	Column bases.	8	SM		
D	Vertical columns. <u>Foundation Walling.</u> <u>Rough dressed squared natural stone walling in cement sand(1:3) mortar;</u>	52	SM		
E	200 mm thick. <u>Plinths</u>	35	SM		
F	14mm thick 2 No. coatwork cement sand (1:3) render; wood floated to concrete or blockwork base to walls; external.	22	SM		
G	Prepare and apply three coats black bituminous paint to rendered plinths externally. <u>Concreting</u> <u>Insitu vibrated reinforced concrete class 25(20mm agregate) 1:2:4 to;</u>	22	SM		
H	Vertical columns. <u>Reinforcement</u> <u>High yield mild steel ribbed bars including cutting, bending, spacers, tying wire and fixing; to KS 573:2014 in:-</u>	1	CM		
I	8mm diameter.	41	KG		
J	12mm diameter. <u>Sawn formwork to insitu concrete as described to:-</u>	85	KG		
K	Sides of columns.	19	SM		
Carried to Collection.					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Superstructure walling.				
	Machine cut stone walling in cement and sand mortar(1:3) reinforced with and including 25mm wide x 5mm gauge hoop iron at alternate courses with minimum crushing strength of 7.0N/mm².				
A	200mm thick walling.	27	SM		
	The following in grill for walling in 50 x 50 x 4mm thick SHS steel tubes spaced at 200mm centres, welded and fixed to wall in concrete; to approved pattern, painted in one primer and two coats gloss oil.				
B	50 x 50 x4mm thick tubes to wall.	27	SM		
Carried to Collection.					
	<u>COLLECTION</u>				
	Brought forward from page 7.				
	Brought forward from page 8.				
	Brought forward from page above.				
TOTAL FOR ELEMENT NO.4 PERIMETER WALL CARRIED TO SUMMARY.					

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ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.5 CHAINLINK FENCING.</u>				
	Carefully remove existing chainlink and hand over to client.	1	ITEM		
	<u>The following for chainlink fencing, fixed to wooded poles. Poles to be provided by client.</u>				
A	Excavate for post footing; starting from stripped level; average depth 600mm deep.	4	CM		
	<u>Concrete Works.</u>				
	<u>Plain concrete (1:3:6 - class 20/20mm) in :</u>				
B	Post Footing.	4	CM		
	<u>Mass concrete</u>				
C	100x100mm Mass concrete surround to hold down the chainlink	289	LM		
D	Supply and fix 12 G chain link fencing to wooden posts at 3000mm centres with and including 4 no. barbed wire; fixing the chainlink with concrete surround all fixed to approval; overall height 2400mm high.	289	LM		
TOTAL FOR ELEMENT NO.5 CHAINLINK FENCING CARRIED TO SUMMARY.					

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ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<u>SUMMARY</u>					
1	Substructure works from page 3.				
2	Structural steel frame superstructure, roof structure, roof covering and rainwater goods from page 5.				
3	Concrete paving from page 6.				
4	Perimeter wall from page 9.				
5	Chainlink fencing from page 10.				
TOTAL FOR BILL NO. 2 BUILDERS WORKS CARRIED TO GRAND SUMMARY.					

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PC & PROVISIONAL SUM

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><u>BILL NO. 3 PRIME COST SUMS.</u></p> <p><u>PRIME COST SUMS</u></p> <p><u>Allow for the following PRIME COST SUMS for works to be executed by a domestic sub-contractor.</u></p> <p><u>Electrical Installations</u></p> <p>Kenya Shillings</p> <p>.....</p> <p>.....</p> <p>..... only for Electrical Installations (HV, industrial power connection points, fast & slow charging point provisions) to receive EV Chargers.</p> <p style="text-align: right;">Allow for profits.</p> <p style="text-align: right;">Allow for Attendance.</p>		ITEM		
Carried to Collection.					

M.

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p style="text-align: center;"><u>PROVISIONAL SUMS</u></p> <p><u>Allow the following PROVISIONAL SUMS to be expended in whole or in part thereof or omitted in entirety; using the rates contained in this bill of quantities or prorata therefore under the PM's instructions;</u></p> <p><u>Contingencies</u></p> <p>Allow a Provisional Sum of Kenya Shillings two hundred and fifty thousands only (Kshs.250,000.00) for contingencies.</p>		Sum		
Carried to Collection.					
	<p style="text-align: center;"><u>COLLECTION.</u></p> <p>Brought forward from page 1.</p> <p>Brought forward from page above.</p>				
	TOTAL PC & PROVISIONAL SUMS CARRIED TO GRAND SUMMARY PAGE				



**PROPOSED CONSTRUCTION OF ELECTRIC VEHICLE
CHARGING STATION IN ELDORET.**

GRAND SUMMARY

BILL NO.	DESCRIPTION	Page No.	CONTRACTOR'S USE		OFFICIAL USE	
			K.SHS.	CTS.	K.SHS.	CTS.
1	PRELIMINARIES.	P/15				
2	BUILDER'S WORKS.	BW / 11				
3	PRIME COSTS & PROVISIONAL SUMS.	PC 2				
	SUB-TOTAL					
	ADD 16% VAT					
GRAND TOTAL CARRIED TO FORM OF TENDER.			K.SHS.			