BILL OF QUANTITIES FOR REHABILITATION & SUBSTATION BALASTING LOT-A

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	Preliminaries-For All substation sites in the Lot				
A	Allow for a temporary site office prefarably portable that can be shifted to multiple site or external arrangement as per contractor convinience(Works lasting only 4 months)	ITEM	1		
B	Ditto but provide at his own risk and cost where directed on the site weatherproof lockup sheds for the safe storage and custody of material for the Works and for the use of workmen engaged thereon and shall remove such sheds and make good damaged or disrupted surfaces upon completion to the satisfaction of the Project Manager.	ITEM	1		
C	Allow for clean water for the works	ITEM	1		
D	Allow for all the necessary statutory approvals for the works	ITEM	1		
E	Allow for temporary sign post for the proposed works	ITEM	1		
F	The Contractor shall allow and be entirely responsible for the security of all the Works, stores, materials, plant, personnel, etc, both his own and sub-contractors' and must provide all necessary watching, lighting and other precautions as necessary to ensure security against theft, loss or damage and the protection of the public.	ITEM	1		
G	Allow for Insurance Cover for the proposed works and workers.				
H	Allow for a qualified personel conservant with Kenya Power safety regulations for the entire contract period	ITEM	1		
I	Allow communication appliances for PM/Project engineer and supervisor.allow provisional 700,000	ITEM	1		
J	Allow for supply of power or provide for an adequate Capacity Generator on site for the supply of power for use for the works.	ITEM	1		
K	Allow for demobilization and relocation to different site	ITEM	1		
L	Allow for samples testing in accedited labaratories all material as per engineer request	ITEM	1		
	TOTAL TO SUMMARY PAGE-PRELIMINARIES				

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
KABARNET 33/11KV SUBSTATION					
	SWITCHYARD				
A	Excavate oversite vegetable soil average depth of 300mm and cart way to Municipal Council designated damping site	SM	750		
B	Supply and spread average 150mm thick selected well compacted imported and approved murram fill, compacted in layers of 150mm thick using a plate/vibrating portable roller compactor to receive ballast (ms) to gradual slope terminating at storm drain	SM	750		
C	Apply suitable and approved weed killer, herbicide to surfaces of backfill as per the Manufacture's written instructions and a 12 month guarrantee and provide a copy to client	SM	750		
D	1000 gauge polythene or other equal and approved membrane laid on compacted and treated surface with welted laps of 200mm wide.	SM	750		
E	Supply and spread uniformly 150mm thick (30-40mm) crushed Agregates/ ballast in switchyard. (machine crushed)	SM	750		
F	Provide concrete insitu channel 200x 200x275mm above switchyard level along the edges of invert drain block,road edges to secure from falling ballast.	LM	200		
	FENCING				
G	Construct 225mm thick substructure quarry natural stone wall and approved natural machine cut stone walling in superstructure and reinforced with 20 SWG hoop iron in every two alternating course.bedded and jointed in cement and sand (1:3)mortar; maximum height 1.5m from strip foundation to capping top(MS)including excavation, backfilling and	SM	200		
H	Ditto but stone piles/pillars at 3.0m intervals including construction joints at every 30.0m.	SM	100		
I	150mm thick viibrated reinforced concrete class 25/20 (1:2:4) in 1 strip and pile foundations	CM	20		
J	Ditto but in throted copping; average 50mm thick and with both falls.	CM	4		
K	15mm thick cement sand plaster (1:4) to walling to receive paint (ms)	SM	285		
L	Prepare and apply two coats of premimium grade bituminous paint on wall plastered surfaces	SM	285		
	Allow PM office facilitation to User supervision representative-2 no. on communication & data-Provisional 200,000	ITEM	1		
	TOTAL TO SUMMARY PAGE 1				

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	Chainlink				
A	1.5m high x10A Gauge chain-link complete with 4mm diameter 3 strands of galvanized plain wire passing through hole in the 2.0m high 75x50x1.5mm thick RHS,450mm cranked posts (50No) placed at 3.0m centers, 3No. strands of 12Gauge barbed wire on 450mm cranks, including, excavation and erection works, mortised in 1:3:6 mix mass concrete surround 300mm deep, including 16N0.75x50x1.5mm thick RHS strut posts at approprite locations; including priming and painting the steel posts with supergloss premimium grade paint	LM	145		
B	Fair face plain concrete insitu copping (1:3:6)mix, size; 200x75mm high to anchor and hold chain-link ion top of half wall.	CM	7		
	Gate				
C	Rehabilitate the 2No.existing gates by making good all areas that need repair, repaint all to client satisfactory.	ITEM	1		
	CABLE TRENCHES & DUCTS				
D	Refurbish existig cable trenches by hacking 150mm and raise to 300mm above ground by lean concrete on the 150mm walls and clearing the debris in trenches.	LM	85		
E	Provide and put in place precast concrete trench covers size; 900x400x75mm thick, reinfoced with T8 bars spaced at 100mm both ways with fair face finish on both side; concrete to class 25	NO	215		
F	Supply and lay 110mm diameter class 41 UPVC ducts to receive control cables running on the surface; and crossing the access road, including excavation of trench, backfilling and 100mm thick hounching on ducts sorrounds.	LM	60		
	TOTAL TO SUMMARY PAGE 2				

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	STORM WATER DRAINAGE				
A	Excavate on site drain trench not exceeding 1.5m deep including plucking and struting, dispoasl of soil to receive drainage channels and forming sloping sides in well compacted murram bed.	CM	225		
B	Lay (300x450mm) precast concrete invert block drains to a suitable fall with grooved edge and tounged joints filled with cement/sand mortar (1:3) and laid on 50mm thick plain concrete bed	LM	150		
C	Supply and lay on sides of sloped trench (75x230mm wide) precast concrete slabs jointed in 1:3 cement sand mortar	LM	300		
D	Fair face plain concrete strip (1:3:6)mix, size; 150x250mm high to on both side of drain including excavation and carting away the excavated materials.	CM	11		
	ACCESS ROAD				
E	Supply and handpack hardcore, 300mm thick, well rammed and consolidated in 150mm thick layers in stripped access road.	SM	230		
F	Ditto but 50mm thick approved 3/8" clean ballast on access road survace	SM	230		
G	250 x 125mm High pre-cast concrete kerb bedded and jointed in cement and sand (1:4) mortar including 325x100mm thick mass concrete class 20/20 in foundation and haunching at the back, all necessary formwork and excavations.	LM	120		
H	Repair and make good existing concrete paving blocks at the main gate entrance to Engineer's satisfactory.	ITEM	1		
I	Construct 8.0m long open drain channel size; 450mm wide and 450mm deep, 150mm thick reinforced concrete walling and base; including 63x63x4mm thick MS angle line embedded in concrete with fish-tailed 12mm diameter x 125mm long MS inserts, in drain walling to recive steel gratting (ms);	ITEM	1		
J	D10 at 150mm centres both ways	KG	105		
K	Provide fabicated 8.0m long heavy duty grating; 450mm wide with 20mm ribbed bars welded in MS angle 63x63x4mm thick frame at 50mm centres . Prpare and apply gloss primer and two coats of 1st grade aluminium gloos paint.	ITEM	1		
	Control Room Building				
L	Rehabilitate the exist toilet block; repair and make good all areas, stoclient satisfactory.	ITEM	1		
M	Ditto but guard house	ITEM	1		
	TOTAL TO SUMMARY PAGE 3				

	SUMMAY PAGE				AMOUNT
	TOTAL FROM PAGE-PRELIMINARY ALL LOTS				
	TOTAL FROM PAGE 1				
	TOTAL FROM PAGE 2				
	TOTAL FROM PAGE 3				
	SUB-TOTAL KABARNET				
DCK 33/11KV SUBSTATION					
ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	SWITCHYARD				
A	Excavate oversite vegetable soil average depth of 300mm and cart way to Municipal Council designated damping site	SM	1930		
B	Supply and spread average 150mm thick selected well compacted imported and approved murram fill, compacted in layers of 150mm thick using a plate/vibrating portable roller compactor to receive ballast (ms) to gradual slope terminating at storm drain	SM	1930		
C	Apply suitable and approved weed killer, herbicide to surfaces of backfill as per the Manufacture's written instructions and a 12 month guarrantee and provide a copy to client	SM	1930		
D	1000 gauge polythene or other equal and approved membrane laid on compacted and treated surface with welted laps of 200mm wide.	SM	1685		
E	Supply and spread uniformly 150mm thick (30-40mm) crushed Agregates/ ballast in switchyard. (machine crushed)	SM	1685		
F	Provide concrete insitu channel 200x 200x275mm above switchyard level along the edges of invert drain block,road edges to secure from falling ballast.	LM	170		
	FENCING				
G	Construct 225mm thick substructure quarry natural stone wall and approved natural machine cut stone walling in superstructure and reinforced with 20 SWG hoop iron in every two alternating course.bedded and jointed in cement and sand (1:3)mortar; maximum height 1.5m from strip foundation to capping top(MS)including excavation, backfilling and	SM	225		
H	Ditto but stone piles/pillars at 3.0m intervals including construction joints at every 30.0m.	SM	144		
I	150mm thick viibrated reinforced concrete class 25/20 (1:2:4) in 1 strip and pile foundations	CM	15		
J	Ditto but in throted copping; average 50mm thick and with both falls.	CM	4		
K	15mm thick cement sand plaster (1:4) to walling to receive paint (ms)	SM	306		
L	Prepare and apply two coats of premimium grade bituminous paint on wall plastered surfaces	SM	306		
	TOTAL TO SUMMARY PAGE 1				

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	Chainlink				
A	1.5m high x10A Gauge chain-link complete with 4mm diameter 3 strands of galvanized plain wire passing through hole in the 2.0m high 75x50x1.5mm thick RHS,450mm cranked posts (63No) placed at 3.0m centers, 3No. strands of 12Gauge barbed wire on 450mm cranks, including, excavation and erection works, mortised in 1:3:6 mix mass concrete surround 300mm deep, including 16N0.75x50x1.5mm thick RHS strut posts at approprite locations; including priming and painting the steel posts with supergloss premimium grade paint	LM	170		
B	Fair face plain concrete insitu copping (1:3:6)mix, size; 200x75mm high to anchor and hold chain-link on top of half wall.	CM	9		
	Gate				
C	Fabricate and fix a primary substation gate as per the provided drawing SK.No,07044/B	NO	1		
D	Excavate gate pillar bases commencing from reduced levels and cart away the spoil.	CM	4		
	Ditto but over 1.5m deep but not exceeding 3.0m deep.	CM	1		
E	Plain concrete (1:4:8-20mm aggregates) in 50mm thick blinding for gate column bases.	SM	2		
F	Vibrated reinforced concrete class (1:2:4/25) for gate column bases	CM	1		
G	Ditto but 400x400mm gate columns.	CM	1		
H	Fair face formwork to vertical sides of the columns	SM	10		
I	High yield mild steel reinforcement 8mm and 16mm bars including cutting, bending, spacers, tying wire and fixing to BS 4449 in, column bases and columns	KG	225		
	CABLE TRENCHES & DUCTS				
J	Refurbish existig cable trenches by hacking 150mm and raise to 300mm above ground by lean concrete on the 150mm walls and clearing the debris in trenches.	LM	85		
K	Provide and put in place precast concrete trench covers size; 900x300x75mm thick, reinfoced with T8 bars spaced at 100mm both ways with fair face finish on both side; concrete to class 25	NO	300		
L	Supply and lay 110mm diameter class 41 UPVC ducts to receive control cables running on the surface; including excavation of trench, backfilling and 100mm thick hounching on ducts sorrounds.	LM	90		
M	Allow PM office facilitation to User supervision representative-2 no. on communication & data-Provisional 200,000	ITEM	1		
	TOTAL TO SUMMARY PAGE 2				

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	STORM WATER DRAINAGE				
A	Excavate on site drain trench not exceeding 1.5m deep including plucking and struting, dispoasl of soil to receive drainage channels and forming sloping sides in well compacted murram bed.	CM	90		
B	Lay (300x450mm) precast concrete invert block drains to a suitable fall with grooved edge and tounged joints filled with cement/sand mortar (1:3) and laid on 50mm thick plain concrete bed	LM	100		
C	Supply and lay on sides of sloped trench (75x230mm wide) precast concrete slabs jointed in 1:3 cement sand mortar	LM	100		
D	Fair face plain concrete strip (1:3:6)mix, size; 150x250mm high to on both side of drain including excavation and carting away the excavated materials.	LM	200		
	ACCESS ROAD				
E	Supply and handpack hardcore, 300mm thick, well rammed and consolidated in 150mm thick layers in stripped access road.	SM	300		
F	Ditto but 50mm thick approved 3/8" clean ballast on access road survace	SM	300		
G	250 x 125mm High pre-cast concrete kerb bedded and jointed in cement and sand (1:4) mortar including 325x100mm thick mass concrete class 20/20 in foundation and haunching at the back, all necessary formwork and excavations.	LM	120		
H	Construct 8.0m long open drain channel size; 450mm wide and 450mm deep, 150mm thick reinforced concrete walling and base; including 63x63x4mm thick MS angle line embedded in concrete with fish-tailed 12mm diameter x 125mm long MS inserts, in drain walling to recive steel gratting (ms);	ITEM	1		
I	D10 at 150mm centres both ways	KG	105		
J	Provide fabicated 8.0m long heavy duty grating; 450mm wide with 20mm ribbed bars welded in MS angle 63x63x4mm thick frame at 50mm centres . Prpare and apply gloss primer and two coats of 1st grade aluminium gloos paint.	ITEM	1		
	Control Room Building				
K	Rehabilitate the exist control room building; repair and make good all areas, supply and lay 600x600x50mm thick precast paving blocks embeded on well compacted 50mm murram, jointed with cement/sand mortar (1:4) around the contol building.	ITEM	1		
L	Ditto but guard house and toilet	ITEM	2		
	TOTAL TO SUMMARY PAGE 3				

	SUMMAY PAGE			AMOUNT	
	TOTAL FROM PAGE 1				
	TOTAL FROM PAGE 2				
	TOTAL FROM PAGE 3				
	SUB-TOTAL DCK SUBSTATION				
	SUMMARY PAGE LOT 1 CENTRAL RIFT				
	SUB-TOTAL KABARNET SUBSTATION				
	SUB-TOTAL DCK SUBSTATION				
	TOTAL				
	ADD 0.03% LEVY				
	ADD 16% VAT				
	TOTAL TO FORM OF TENDER LOT 1-CENTRAL RIFT				
	Amount in words:.....				
	.....				
	Company Stamp				
	Signed:				
	Name:				
	Address:				
	Conctract Period: ...12 MONTHS COMPLY TO DURATION .....YES.....NO.....				