


<b><u>BILL OF QUANTITIES FOR REHABILITATION &amp; SUBSTATION BALASTING LOT-2</u></b>					
<b>ITEM NO.</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY</b>	<b>UNIT RATE</b>	<b>AMOUNT</b>
<b><u>Preliminaries</u></b>					
1	Allow for a temporary site office preferably portable that can be shifted to multiple site or external arrangement as per contractor convenience(Works	ITEM	1		
2	Allow for clean water for the works	ITEM	1		
3	Allow for all the necessary statutory approvals for the works	ITEM	1		
4	Allow for temporary sign post for the proposed works	ITEM	1		
5	Allow for security and insurance for the proposed works	ITEM	1		
6	Allow for a qualified personel conservant with Kenya Power safety regulations for the entire contract period	ITEM	1		
7	Allow communication appliances for project engineer and supervisor.allow provisional 350,000	ITEM	1		
8	Allow for supply of power for the works.	ITEM	1		
<b><u>CIVIL WORKS</u></b>					
<b><u>LANET 132/33KV SUBSTATION</u></b>					
<b><u>SWITCHYARD</u></b>					
1	Excavate oversite vegetable soil average depth 150mm and cart way to Municipal Council designated damping	SM	3000		
2	Average 0.2mm thick selected well compacted imported and approved murrum fill, compacted in layers of 150mm thick using a plate compactor to receive ballast to gradual slope terminating at sroorm drain	CM	600		
3	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	3000		
4	1000 gauge polythene or other equal and approved mebrane laid on compacted and treated surface with welted laps of 200mm wide.	SM	3000		
5	Supply and spread uniformly 150mm thick (30-40mm) crushed Agregates/ ballast in switchyard. (machine crushed)	SM	2000		
6	Provide 150mm precast concrete or insitu channe 250mm above switchyard level along the edges of invert drain block,road edges to secure from falling ballast.	LM	200		
					
<b><i>TOTAL TO SUMMARY PAGE</i></b>					

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
7	Allow cleaning and re use of existing ballast to appointed areas in the yard	SM	1000		
	<b>CABLE TRENCHES &amp; DUCTS</b>				
1	Refurbish existig cable trenches by hacking 150mm tongue and groove and extension to 300mm above ground by lean concrete on the 150mm walls- Provisional length	LM	300		
2	Provide and put in place (900x300x70mm) thick precast concrete trench covers reinforced with Y8 bars spaced at 100mm both ways with fair face finish on both side; concrete to class 20	NO	1000		
3	Allow for repair and reinforce existing chainlink-100lm and gates posts,mesh,strands where dilapidated and realign well with new proposed half wall ,all works including either priming all metal posts and tassociated work to make good	Item	1		
	<b>STORM WATER DRAINAGE</b>				
1	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		
2	Lay (300x450mm) precast concrete invert block drains to a suitable fall with grooved edge and tounded joints filled with cement/sand mortar (1:3) and laid on 50mm thick plain concrete bed	LM	100		
3	Supply and lay on sides of sloped trench (75x230mm wide) precast concrete slabs jointed in 1:3 cement sand mortar	LM	100		
	<b>ACCESS ROAD REPAIR</b>				
1	Repair broken potions next to transformer area	SM	10		
2	ALLOW for hard compacted 5m(150sm) gravel road on 33/11kv side withj 500mm compacted layers to 95MDD and culvert 600 including all works and headwall/kerbs,chanel and all paintings.finished surface with quarry chips 100mm.	Item	1		
	<b>STORM RETICULATION</b>				-
1	Allow for surface drainage collector manholes 500x500x500mm deep 15 nos connected with 6' heavy duty Pvc pipes (provisional 100LM) to form closed system and all joined to sedimentation pits /manholes 500X500X1m deep all this to connect to nain draine adjacent to road.All manholes covered with steel grating mesh frame of 16mm rod bars onto aan angular frame .including all builders ,masonry and plumbing works	Item	1		
	<b>TOTAL TO SUMMARY PAGE</b>				

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	<b>KIGANJO 33/11KV SUBSTSTION</b>				
	<b>SWITCHYARD</b>				-
1	Excavate oversite vegetable soil average depth 150mm and cart way to Municipal Council designated damping	SM	1600		
2	ALLOW for oversite removal of shrubs bushes ,clearing all vegetation on non live areas within the KPLC	SM	2000		
3	Average 0.2mm thick selected well compacted imported and approved murrum fill, compacted in layers of 150mm thick using a plate compactor to receive ballast to gradual slope terminating at srorm drain	CM	350		
4	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	2000		
5	1000 gauge polythene or other equal and approved mebrane laid on compacted and treated surface with welted laps of 200mm wide.	SM	1400		
6	Supply and spread uniformly 150mm thick (30-40mm) crushed Agregates/ ballast in switchyard. (machine crushed)	SM	1400		
7	Provide 150mm precast concrete or CAST insitu channe 300mm above switchyard level along the edges of invert drain block,road edges to secure from falling ballast	LM	250		
8	Allow cleaning and re use of existing ballast to appointed areas in the yard	SM	700		
	<b>CABLE TRENCHES &amp; DUCTS</b>				
1	Refurbish existig cable trenches by hacking 150mm tongue and grove and extension to 300mm above ground by lean concrete on the 150mm walls- Provisional length	LM	100		
2	Provide and put in place (600x300x70mm) thick precast concrete trench covers reinforced with Y8 bars spaced at 100mm both ways with fair face finish on both side; concrete to class 20	NO	300		
3	Allow for repair and reinforce existing chainlink-100lm and gates posts,mesh,strands where dilapidated and realign well with new proposed half wall ,all works including either priming all metal posts and tassociated work to make good	Item	250		
	<b>TOTAL TO SUMMARY PAGE</b>				

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
<b>STORM WATER DRAINAGE</b>					-
1	Excavate on site drain trench not exceeding 1.5m deep including plucking and strutting, disposal of soil to receive drainage channels and forming sloping sides in	CM	90		
2	Lay (300x450mm) precast concrete invert block drains to a suitable fall with grooved edge and tongued joints filled with cement/sand mortar (1:3) and laid on 50mm thick plain concrete bed	LM	100		
3	Supply and lay on sides of sloped trench (75x230mm wide) precast concrete slabs jointed in 1:3 cement sand mortar	LM	100		
<b>PERIMETER 600MM AGL WALL</b>					
<b>Block walling in cement sand mortar (1:3) including and reinforced with 20 SWG hoop iron in every two alternating course.including all bases excavations ,concrete works</b>					
1	200mm thick natural stone wall	SM	250		
2	Ditto but pile pillars	SM	60		
3	Allow class 20 concrete for steps and bases	CM	20		
4	Allow for plaster/finishes,with black bituminous coat.	SM	500		
<b>REFURBISHMENTS</b>					
1	Rehabilitate the existing gate house and Toilet by, redoing the internal and external finishes,hack and screed the floor and supply and fix approved ceramic tile on the floor.Repair all broken windows ,panes,Lighting ,and Prepare and apply first grade undercoat and two coat of paints on refurbished walls to match with the new control room colours.	Item	1		
2	ALLOW for External painting control building including making good splash aprons and skirting with black bituminous	SM	150		
3	Allow for existing access road repair,regrading and loose surfacing 100mm	SM	100		
<b>TOTAL TO SUMMARY PAGE</b>					

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	<b>KARATINA 33/11KV SUBSTSTION</b>				
	<b>SWITCHYARD</b>				-
1	Excavate oversite vegetable soil average depth 150mm and cart way to Municipal Council designated damping	SM	1600		
2	ALLOW for oversite removal of shrubs bushes ,clearing all vegetation on non live areas within the KPLC	SM	800		
3	Average 0.2mm thick selected well compacted imported and approved murrum fill, compacted in layers of 150mm thick using a plate compactor to receive ballast to gradual slope terminating at srorm drain	CM	350		
4	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	2400		
5	1000 gauge polythene or other equal and approved mebrane laid on compacted and treated surface with welted laps of 200mm wide.	SM	1400		
6	Supply and spread uniformly 150mm thick (30-40mm) crushed Agregates/ ballast in switchyard. (machine crushed)	SM	1400		
7	Provide 150mm precast concrete or CAST insitu channe 300mm above switchyard level along the edges of invert drain block,road edges to secure from falling ballast.	LM	250		
8	Allow cleaning and re use of existing ballast to appointed areas in the yard	SM	700		
	<b>CABLE TRENCHES &amp; DUCTS</b>				
1	Refurbish existig cable trenches by hacking 150mm tongue and grove and extension to 300mm above ground by lean concrete on the 150mm walls-	LM	100		
2	Provide and put in place (600x300x70mm) thick precast concrete trench covers reinforced with Y8 bars spaced at 100mm both ways with fair face finish on both side; concrete to class 20	NO	300		
3	Allow for repair and reinforce existing chainlink-100lm and gates posts,mesh,strands where dilapidated and realign well with new proposed half wall ,all works including either priming all metal posts and tassociated work to make good	Item	100		
	<b>TOTAL TO SUMMARY PAGE</b>				

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
<b>STORM WATER DRAINAGE</b>					-
1	Excavate on site drain trench not exceeding 1.5m deep including plucking and strutting, disposal of soil to receive drainage channels and forming sloping sides in	CM	90		
2	Lay (300x450mm) precast concrete invert block drains to a suitable fall with grooved edge and tongued joints filled with cement/sand mortar (1:3) and laid on 50mm thick plain concrete bed	LM	100		
3	Supply and lay on sides of sloped trench (75x230mm wide) precast concrete slabs jointed in 1:3 cement sand mortar	LM	100		
<b>PERIMETER 600MM AGL WALL</b>					
<b>Block walling in cement sand mortar (1:3) including and reinforced with 20 SWG hoop iron in every two alternating course.including all bases excavations ,concrete works</b>					
1	200mm thick natural stone wall	SM	160		
2	Ditto but pile pillars	SM	50		
3	Allow class 20 concrete for steps and bases	CM	16		
4	Allow for plaster/finishes,with black bituminous coat.	SM	350		
<b>REFURBISHMENTS</b>					
1	Rehabilitate the existing gate house and Toilet by Repair all broken windows ,panes,Lighting ,and Prepare and apply first grade undercoat and two coat of paints on refurbished walls to match with the new control room colours.	Item	1		
2	ALLOW for External painting control building including making good splash aprons and skirting with black bituminous	SM	150		
3	Allow for existing access road repair,regrading and loose surfacing 100mm	SM	250		
<b>TOTAL TO SUMMARY PAGE</b>					

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	<b>EMBORI 33/11KV SUBSTSTION</b>				
	<b>SWITCHYARD</b>				-
1	Excavate oversite vegetable soil average depth 150mm and cart way to Municipal Council designated damping	SM	1500		
2	Average 0.2mm thick selected well compacted imported and approved murrum fill, compacted in layers of 150mm thick using a plate compactor to receive ballast to gradual slope terminating at srorm drain	CM	350		
3	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	1500		
4	1000 gauge polythene or other equal and approved mebrane laid on compacted and treated surface with welted laps of 200mm wide.	SM	1500		
5	Supply and spread uniformly 150mm thick (30-40mm) crushed Agregates/ ballast in switchyard. (machine crushed)	SM	1200		
6	Provide 150mm precast concrete or CAST insitu channe 300mm above switchyard level along the edges of invert drain block,road edges to secure from falling ballast	LM	100		
7	Allow cleaning and re use of existing ballast to appointed areas in the yard	SM	300		
	<b>CABLE TRENCHES &amp; DUCTS</b>				
1	Refurbish existig cable trenches by hacking 150mm tongue and groove and extension to 300mm above ground by lean concrete on the 150mm walls-	LM	50		
2	Provide and put in place (600x300x70mm) thick precast concrete trench covers reinforced with Y8 bars spaced at 100mm both ways with fair face finish on both side; concrete to class 20	NO	150		
3	Allow for repair and reinforce existing chainlink-200lm and gates posts,mesh,strands where dilapidated and realign well with new proposed half wall ,all works including either priming all metal posts and tassociated work to make good	Item	200		
	<b>TOTAL TO SUMMARY PAGE</b>				





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	<b>SUMMARY PAGE</b>				
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	TOTAL FROM PAGE 8				
	<b>SUBTOTAL LOT 2 TO FINANCIAL SUMMARY</b>				
	(VAT EXCLUSIVE)				
	Amount in words:.....				
	.....				
	Company Stamp				
	Signed: .....				
	Name: .....				
	Address: .....				
	Contract Period: Lot 2 ...4 MONTHS.....				