



THE WORLD BANK

KISUMU URBAN SUPPORT PROGRAMME (KUSP)

**KISUMU URBAN NON-MOTORIZED (NMT)
INFRASTRUCTURE PROJECT**

LOT 2 ROADS
ONDIEK HIGHWAY
GUMBI ROAD

BILL OF QUANTITIES

MAY 2020

NMT LOT 2 BoQ

ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)
Bill No. 1	Preliminaries/General and Provisional Sums				
1.1	Provide for Engineer's Offices including , furniture, printer/copier/scanner, internet, security, water and electricity and maintainance including all office consummables as directed by the Engineer.	PC Sum			
1.2	Include a percentage on Item 1.1 for the Contactor's Overheads and Profit	%		15%	
1.3	Allow a sum of Ksh 300,000 for material testing	PC Sum		300,000.00	
1.4	Include a percentage on Item 1.3 for the Contactor's Overheads and Profit	%		15%	
1.5	Allow a sum of Ksh 1,600,000 for Resident Engineer's and Support staff accommodation			1,600,000.00	
1.6	Include a percentage on Item 1.5 for the Contactor's Overheads and Profit	%		15%	
1.7	Provide with driver, fuel and maintain one used under 7 years 4 - wheel drive Toyota station wagon of under 3000cc diesel engine capacity, for the exclusive use of the Resident Engineer for unlimited mileage	Veh. Mths	8		
1.8	Field survey work including chainage marking and setting out as diredted by the Resident Engineer	Months	8		
1.9	Allow a sum of Kshs 800,000 for the Engineers miscellaneous account to be spent in whole or part as directed by the Resident Engineer against receipts.	PC Sum			
1.10	Include a percentage on Item 1.9 for the Contactor's Overheads and Profit	%		15%	
1.11	Provide, erect and maintain publicity signs as directed by the Engineer.		2		
1.12	Provide for 4 No Resident Engineers Support Staff for 8 months for Engineers attendance as per special specifications Clause 137	Months	8		
1.13	Include a percentage on Item 1.12 for the Contactor's Overheads and Profit	%		15%	
1.14	Allow a sum of Kshs. 800,000 for payment of overtime to RE Staff	PC Sum			
1.15	Include a percentage on Item 1.14 for the Contactor's Overheads and Profit	%		15%	

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1.16	Allow for provisional sum of Kenya Shillings Two Million Five Hundred Thousand only (2,500,000)for Engineers staff supervision allowances and airtime	PC Sum		2,500,000	
1.17	Include a percentage on Item 1.16 for the Contractors Overheads and Profits	%		15	
Provisional Sums					
<i>To be expended after design and evaluation of contractor quotation in line with Conditions of the Contract and PPADA 2015.</i>					
To be Carried Forward to next Page					-
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)
Brought forward from previous Page					-
1.16	Allow for a provisional sum of Kshs 1,500,000.00 for installation of pedestrian refuge shades along the Walkway as directed by the Engineer	Prov. Sum		1,500,000.00	
1.17	Allow for a provisional sum of Kshs 300,000.00 for installation of pedal cycle parking sheds as directed by the Engineer	Prov. Sum		300,000.00	
1.18	Allow for a provisional sum of Kshs 500,000.00 for installation of Boda Boda facilities as directed by the Engineer	Prov. Sum		500,000.00	
1.19	Allow for a provisional sum of Kshs 12,000,000.00 for installation of streetlighting.	Prov. Sum		12,000,000.00	
1.20	Allow for a provisional sum of Kshs 600,000.00 for supply and installation of benches at locations riected by the Engineer.	Prov. Sum		600,000.00	
1.21	Allow for a provisional sum of Kshs 750,000.00 for planting and nurturing of approved trees as directed by the Engineer.	Prov. Sum		750,000.00	
1.22	Allow for a provisional sum of Kshs 500,000.00 for flower pots with approved flowers.	Prov. Sum		500,000.00	
1.23	Allow for a provisional sum of Kshs 1,500,000.00 for drain rehabilitation and outfall works for free flow of storm water (Ondiek Highway Km 0+700 to 1+300 RHS)	Prov. Sum		1,500,000.00	
1.24	Allow for a provisional sum of Kshs 250,000.00 for rehabilitation and readjustment of the existing drain cover to match planned walkway profile (Ondiek Highway Km 0+490 to 0+710 LHS) as directed by the Engineer	Prov. Sum		250,000.00	
1.25	Allow for a provisional sum of Kshs 250,000.00 for rehabilitation and readjustment of the existing drain cover to match planned walkway profile (Ondiek Highway Km 0+490 to 0+710 LHS) as directed by the Engineer	Prov. Sum		250,000.00	

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1.26	Allow for a provisional sum of Kshs 350,000.00 for rehabilitation of the drain along Gumbi Road including outfalls along link roads for effective storm water management.	Prov. Sum		350,000.00	
To be Carried Forward to Summary Page					-
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)
Bill No. 4	Site Clearance				
4.1	Provide a sum of Kshs 3,000,000 for relocation of services as directed by the Engineer.	PC Sum		3,000,000.00	
4.2	Include a percentage on Item 4.1 for the Contactor's Overheads and Profit	%		15%	
4.3	Dismantling of structures on roadway including sorting out the dismantled material, disposal of unserviceable material complete with leads and lifts as instructed by the Engineer and utilizing the serviceable material free of cost in permanent works.				
	(a) Existing paving material	m ²	1,300		
	(b) Asphalt concrete	m ²	185		
	(c) Kerbs	m	2,950		
	(d) Side drain	m	1,800		
4.4	Remove upto 0.1 m top soil including removal of all grass, transport to spoil and spread or transport to spoil and spread or stockpile for re-use as directed by the Engineer.	m ³	1,770		

To be Carried Forward to Summary Page					
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)
Bill No. 5	Earthworks				
5.1	Cut to spoil in soft.	m ³	3,540		
5.2	Cut to spoil in hard.	m ³	44		
5.3	Compact the surface in to receive approved fill or pavement material to the satisfaction of the Engineer.	m ²	17,680		
5.4	Provide, lay and compact approved fill material to formation levels in 150mm layers compacted to 100%MDD (AASHTO T99) as subgrade.	m ³	450		

To be Carried Forward to Summary Page					
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)
Bill No. 8	Drainage				
8.1	Cut to spoil for side drains including outfall drains as indicated in the drawings or as instructed by the Engineer	m ³	1,050		
8.2	Provide and install Type A side drainage as indicated in the drawing or as instructed by the Engineer	m	830		
8.3	Provide and install Type B side drainage as indicated in the drawing or as instructed by the Engineer	m	1,830		
8.4	Provide reinforced pre-cast 0.675 m wide drain cover slabs for passage of traffic as instructed by the Engineer.	m	550		

To be Carried Forward to Summary Page						-
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)	
Bill No. 9	Traffic Control					
9.1	Maintain passage of traffic through the works including provisions of signs, barring and lighting as per clause 907 of Standard Specification.	Lumpsum				

To be Carried Forward to Summary Page						-
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)	
Bill No. 12	Natural Material for Base and Subbase					
12.1	Provide, lay and compact 100 - 150mm natural gravel as shown in the drawing compacted to 95% MDD (AASHTO T99) for subbase layer for Walkway and Pedal Cyle Lane.	m ³	2,675			
12.2	Provide, lay and compact 100 mm natural gravel (CBR = 30 Minimum) compacted to 95% MDD (AASHTO T99) for Base layer for Walkway	m ³	1,215			

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To be Carried Forward to Summary Page						-
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)	
Bill No. 13	Paving Blocks					
13.1	Prepare road base surface, provide and spread 25 mm quarry dust (0/6) to receive paving blocks as instructed by the Engineer.	m ²	12,575			
13.2	Provide, lay and compact 60 mm paving blocks to manufacture's specifications and to the satisfaction of the Engineer.	m ²	12,575			

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To be Carried Forward to Summary Page					-
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)
Bill No. 14	Cement and Lime Treated Material				
14.1	Provide, store and transport to site of works cement improvement agent for natural material base as specified or as instructed by the Engineer.	Tonne	154		

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14.2	Process the natural Base, lay, spread and process the designed quantity of cement (3% as nominal quantity) on the prepared natural Base, mixing in place with a rotavator, grading with a motor grader (or plant mixed and paver laid) and compacting with a road roller at OMC to achieve the desired unconfined compressive strength and to form a layer of Base or as instructed by the Engineer	m ³	690		
14.3	Allow for curring and protection of treated Pedal Cycle lane base as specified or as instructed by the Engineer	m ²	5,490		
To be Carried Forward to Sammary Page					
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)

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Bill No. 15	Bituminous Surface Treatments & Surface Dressing				
15.1	Clean and prepare surfaces of the Pedal Cyle lane, provide, heat and spray on the same MC30 cutback bitumen prime coat at a rate of spray in the range of 1.0 litre/m ² to 1.2 litres/m ² or as instructed by the Engineer	Litres	6,039		
15.2	As for Item 15.1 but K1-70 for tack coat at the spray rate of (0.3 litres/m ² to 0.8 litres/m ²)	Litres	3,020		

To be Carried Forward to Summary Page					
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)
Bill No. 20	Road Furniture				
20.1	Provide and place Kerbs and Channels as shown in the drawings or as directed by the Engineer.				
	(a) Kerb Type 1A (250mm x 125mm)	m	150		
	(b) Channel Type 1A (100mm x 125mm)	m	10,050		
20.2	Provide and install 75mm Dia, 0.8 m in height steel bollards complete with concrete infill and and two coats paint as directed by the Engineer.	No.	150		
20.2	Provide and lay hot applied thermoplastic road marking compound in approved colour and shade (ASTM 9) for road marking on bituminous road surface on pedestrian crossings, bumps, chevrons, directional arrows, give way and stop lines mm thick using fully automatic extrusion machine and using pre-melter for melting thermoplastic. Material, including dispensing drop on glass beads of approved make and as per BS 6088 at the rate of 250g/m2 including cleaning the surface of all dirt, dust, and other foreign matter, complete with demarcation at site/ pre-marking, finishing and managing the traffic control. Marking to be done as per the specifications, drawings and as instructed by the Engineer.	m ²	150		
20.3	Supply and fix mandatory and warning road sign boards made up with high intensity grade retro-reflective type sheeting(ASTM 9) and in line with Kenya's Manual for traffic signs as directed by the Engineer.	No	8		
20.3	Supply and fix informatory road sign boards made up with high intensity grade retro-reflective type sheeting(ASTM 9) and in line with Kenya's Manual for traffic signs as directed by the Engineer.	No	4		

To be Carried Forward to Summary Page						-
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)	
Bill No. 25	Top Soiling and Grassing					
25.1	Topsoiling and grassing on the verge and other areas as directed by the Engineer	m ²	12,390			

To be Carried Forward to Summary Page					
ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	AMOUNT (KES)
	<p>Schedule of Rates <i>All items of materials must be priced to comply with the Specifications. Proposed rates SHALL be within the prevailing market rates</i></p>				
1	Provide and install 100 mm dia PVC pipes	m	1		
2	Ditto Item 1 but 50 mm complete with concrete sorrounds	m	1		
3	Provide, lay and compact graded crushed stone	m ³	1		
4	Provide, lay and joint 450 mm I.D. Cement Concrete pipes for service ducts as shown in the drawing or instructed by the Engineer	m	1		
5	Provide, lay and joint 600 mm I.D. Cement Concrete pipes for service ducts as shown in the drawing or instructed by the Engineer	m	1		
6	Reinforced concrete class 25/20	m ³	1		
7	Concrete class 20/20	m ³	1		
8	Provide and apply two coats of synthetic enamel paint including primer to kerbs as per the Technical Specifications and as instructed by the Engineer.	m ²	1		
9	Provide and install steel pedestrian barricades	m	1		
10	Prepare surface, transport and lay recovered slabs as directed by the Engineer.	m ²	1		

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GRAND SUMMARY OF BILL OF QUANTITIES

BILL	DESCRIPTION	AMOUNT (USD)
1	Preliminaries/General and Provisional Sums	-
4	Site Clearance	-
5	Eathworks	-
8	Drainage	-
9	Traffic Control	-
12	Natural Subbase and Base	-
13	Paving Blocks	-
14	Cement and Lime Treated Material	-
15	Bituminous Surface Treatments & Surface Dressing	-
16	Bituminous Mix Bases, Binder Courses and Wearing Courses	-
17	Survice Duct	-
20	Road Furniture	-
25	Top Soiling and Grassing	-
(A)	Sub-Total 1	-
(B)	10% for Contingencies	-
(C)	Sub-Total 2	-

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(D)	16% VAT	-
(E)	GRAND TOTAL (C+D)	-