

KAMAKWA- KANDARA -SEWER CUSTOMER CONNECTIONS (ALL ARE PROVISIONAL)					
ITEM	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
1.00	BILL 1 - PRELIMINARY AND GENERAL ITEMS				
1.10	Contractual Requirements				
1.11	Provide Kshs. 200,000 for Perfomance Bond	Ls	1		
1.12	Provide Kshs. 150,000 for all risk insurances	Ls	1		
1.20	Provisional Sums (Special requirements)				
1.21	Provide Kshs. 100,000 for site setup establishment and removal on completion. Mobilization and demobilization of equipment and personel.	Ls	1		
1.22	Provide Kshs 200,000 for reinstatement of the damaged road surfaces.	Ls	1		
1.23	Provide Kshs 200,000 for reinstatement of the damaged service infrustructure during construction	Ls	1		
1.24	Provide for Kshs 500,000 reinstatement of damaged concrete and cabro surfaces.	ls	1		
1.25	Provide Kshs. 50,000 for establishment and removal of project sign-boards as directed by the Project Manager.	Item	1		
1.26	Provide Kshs. 100,000 for any costs associated with compliance with Environmental ,Health and Safety requirements.	Ls	1		
1.27	Provide Kshs 1,500,000 for purchase of a Survey Total station and a dumpy level as per specifications provided by the Project Manager. The equipments to revert to the Employer at the end of the contract.	Ls	1		
1.28	Add 10% for contractor's Markup on provisional sum for items 1.21-1.27	%	10.00		
	Day Works				
1.26	Provide Kshs 100,000 as Day Works- Labour	Sum	1		
1.27	10% Contractor's mark-up on provisional sum for Day Works- Labour	%	1		
1.28	Provide Kshs 150,000 as Dayworks -Plant	Sum	1		
1.29	10% Contractor's mark-up on provisional sum for Day Works- Plant	%	1		
	Sub-Total 01 (Provisional Sums) Taken to				

2.00	Kamakwa- Kandara sewer customer connections				
2.10	Specified Requirements				
2.11	<u>Testing of works</u>				
	Provide Kshs. 200,000 to Carry out testing and cleansing of the Sewers in accordance with the specifications specified in the works requirements.	LS	1.00		
2.20	DEMOLITION AND SITE CLEARANCE				
	<u>General clearance</u>				
2.21	Provide Kshs. 100,000 to Demolish and cart away natural and artificial articles, objects, trees and obstructions which are above the original surface, 1m on either side of the sewer lines	LS	1.00		
2.22	Add 10% contractors Markup on provisional sum for item 2.21	%	1.00		
3.00	EARTHWORKS:				
3.10	TRENCH EXCAVATIONS FOR LAYING PIPES				
	<u>All customer connections</u>				
3.11	Excavation for 800mm trench for laying of uPVC pipes to a depth n.e. 3.0m	CM	4,560.00		
	EXTRA EXCAVATIONS				
	Over excavations for manholes:				
3.12	Soft materials	CM	206.00		
3.13	Hard Surfaces, Murrum, concrete and Cabro stones	CM	45.00		
3.14	Class1 rocks	CM	20.00		
	Over excavations for Trenches:				
3.15	Hard Surfaces, Murrum, concrete and Cabro stones	CM	140.00		
3.16	Class1 rocks	CM	80.00		
4.00	PIPE BEDDING				
4.10	Provide 200mm- 300mm Approved Red soil filling compacted in layers of 150mm murrum bedding as per the design details	SM	3,040.00		
	Sub- Total 02				

BILL 3:KAMAKWA- KANDARA GRAVITY SEWER (PIPEWORKS)					
ITEM	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
5.00	PIPEWORK - SEWERS				
	Provide, lay, and joint class 41 uPVC sewers in standard lengths. Rates to include for surveying and setting out excavation, shoring, disposal of excavated extra soil material to a distance not exceeding 4km, backfilling of pipe trenches, ground reinstatement thereafter and cementing of new pipes to new and existing manholes along the line.				
5.10	<u>Kamakwa - Kandara customer connections</u>				
	150mm uPVC laid at a Depth n.e. 3m	LM	4,020.00		
	200mm uPVC laid at a Depth n.e. 3m	LM	100.00		
5.20	PIPEWORK ANCILLARIES FOR BACKDROP MANHOLES				
	150mm uPVC DOWN PIPE	LM	450.00		
	200mm uPVC DOWN PIPE	LM	30.00		
	150mm uPVC ELBOWS	NO	180.00		
	200mm uPVC ELBOWS	NO	15.00		
	150mm uPVC TEES	NO	180.00		
	200mm uPVC TEES	NO	15.00		
	150mm uPVC ACCESS CUP	NO	180.00		
	200mm uPVC ACCESS CUP	NO	15.00		
	HOLDERBATS	NO	300.00		
	Y-Junctions	No	140.00		
	Sub- Total 03				

6.00	MANHOLES <i>Manholes / Reinforced concrete manholes as shown on Ring drawings in the following depth ranges, complete with Heavy duty triangular manhole cover and step irons as shown on drawings. Rates to include for excavation, shown on drawings. Rates to include for excavation, shoring, supply and erection of formworks (Steel Moulds), insitu concrete surround for rings, backfilling and disposal of extra soil material as directed to a distance not exceeding 4km.</i>				
6.10	Kamakwa- Kandara				
	Concrete works:-				
	Provide 1:2:4 Reinforced concrete for 200mm thick manhole base slab	CM	70.00		
	1220mm Dia. Ditto manhole cover slabs	CM	40.00		
	Ditto to 150mm thick walling	CM	93.00		
6.11	High Tensile Steel Reinforcement to B.S. 4483				
	Y8mm Bars	KG	1400		
	D10mm Bars	KG	1375		
	D12mm Bars	kg	50		
	Butemen Coated cast iron steps	NO	115		
6.12	Manhole covers				
	supply and install with proper finishes 560mm X 540mm high density Triangular plastic Manhole covers as per the drawings and specifications	NO	120		
	Sub- Total 04				
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