| | BIL | L 1: GENER | AL. | 1 | | |
|------|---|------------|------------|---------------|---------------|----|
| ITEM | DESCRIPTION | UNIT | QTY | RATE | AMOUNT SHS | CT |
| 1.01 | Allow for PC Sum of Kshs. 2,000,000 for material testing | PC Sum | 1 | 2,000,000 | 2,000,000 | |
| 1.02 | E.O. item 1.01 for Contractor's overheads & profits | % | | | | |
| 1.03 | Allow for PC Sum OF Kshs. 3,600,000 Resident Engineer's Miscellaneous Account to be spent in whole or part as directed by the Resident Engineer against receipts | PC Sum | 1 | 3,600,000 | 3,600,000 | |
| 1.04 | E.O. item 1.03 for Contractor's overheads & profits | % | | | | |
| 1.05 | Allow for PC Sum OF Kshs. 13,500,000 for attendance to Engineers Staff in accordance with clause 137 of the Specifications | PC Sum | 1 | 13,500,000 | 13,500,000 | |
| 1.06 | E.O. item 1.05 for Contractor's overheads & profits | % | | | <u> </u> | |
| 1.07 | Provide with drivers, fuel and maintain One (1) new 4WD fully loaded Station Wagon of minimum diesel engine capacity 2800 CC approved by the Engineer for his exclusive use, inclusive of the first 5000km per vehicle month. Vehicle to revert to the Contractor at the end of the project. | Veh Month | 18 | | | |
| 1.08 | E.O item 1.07 for total aggregated mileage in excess of 5000 km per vehicle month. | Km | 18,000 | | | |
| 1.09 | Provide with drivers, fuel and maintain one (1) new 4WD fully loaded double cabin pick-up of minimum diesel engine capacity 2500 CC approved by the Engineer for his exclusive use, inclusive of the first 5000km per vehicle month. Vehicle to revert to the Contractor at the end of the project. | Veh Month | 18 | | | |
| 1.10 | E.O item 1.09 for total aggregated mileage in excess of 5000 km per vehicle month. | Km | 18,000 | | | |
| 1.11 | Ditto item 1.09, but one (1) new 4WD standard double cabin pick-up of minimum diesel engine capacity 2500 CC approved by the Engineer for his exclusive use, inclusive of the first 5000km per vehicle month. Vehicle to revert to the Contractor at the end of the project. | Veh Month | 18 | | | |
| 1.12 | E.O item 1.11 for total aggregated mileage in excess of 5000 km per vehicle per month. | Km | 18,000 | | | |
| 1.13 | Ditto item 1.09, but One (1) new 4WD Single cabin pick-ups with fibre glass body of minimum diesel engine capacity 2500cc approved by the Engineer for his exclusive use, inclusive of the first 5000km per vehicle month. Vehicle to revert to the Contractor at the end of the project. | Veh Month | 18 | | | |
| 1.14 | E.O item 1.13 for total aggregated mileage in excess of 5000 km per vehicle per month. | Km | 1,800 | | | |
| 1.15 | Allow for a prime cost sum for of KSIs 5,000,000 for engagement of a HIV/AIDS and COVID-19 specialist sub contractor to deal with prevention and awareness activities as per programme to be approved by the Engineer | PC sum | 1 | 5,000,000.00 | 5,000,000 | |
| 1.16 | E.O for Item 1.06 for Contractor's Oveheads and Profit | % | | | | |
| 1.17 | Allow for PC Sum of Kshs. 30,000,000 for the construction of FULLY EQUIPED AND SOLAR POWERED 3No. Boreholes at a location instructed by the Resident Engineer | PC sum | | 30,000,000.00 | 30,000,000 | |
| | | | 1 | | | |
| 1.18 | E.O for Item 1.17 for Contractor's Oveheads and Profit | % No. | 2 | | | |
| , | Provide, erect and maintain publicity signs as directed by the Engineer | 110. | | | | |
| | Total of Bill Carried Forward to Summary BILL 4: SITE CLEARAN | ICE AND | TOPSOIL S' | FRIPPING | | |
| | | | | | AMOUNT | |
| ITEM | DESCRIPTION | UNIT | QTY | RATE | SHS | СТ |
| 4.01 | Heavy Bush Clearing | M^2 | 250,000 | | | |
| | | | | | | |
| | Total of Bill Carried Forward to Summary | | | | | |

| | | | | | AMOUN | r . |
|--------------|---|-------------|--------------|------|-------|-----|
| TEM | DESCRIPTION | UNIT | QTY | RATE | SHS | C |
| | No separate payments shall be made for the overhaul of material and the cost of such haulage shall be included in the rates and or prices | | | | | |
| 5.01 | Fill in soft material including embankments and compaction to 95% MDD (AASHTO T99) in layers not exceeding 150mm | M^3 | 120,000 | | | |
| 5.02 | Extra over item 5.01 for compaction of the top 300mm subgrade to 100% MDD AASHTO T99) in layers not exceeding 150mm | M^3 | 75,000 | | | |
| 5.03 5.04 | Provide improved sub grade material (S4) to a thickness of 275mm or as instructed by the Engineer and compaction to 100% MDD (AASHTO T99) Cut to spoil in Soft material | M^3 M^4 | 0 150,000 | | | |
| 5.05 | Cut to spoil in Hard material | M^3 | 1,000 | | | |

BILL NO. 7 : EXCAVATION AND FILLING OF STRUCTURES

| ITEM | DESCRIPTION | UNIT | QTY | RATE | AMOUNT | СТ |
|------|--|----------------|---------|-----------|-----------|----|
| | Note: No separate payments shall be made for gravel for blinding or hauling to spoil unsuitable executation materials and the cost of such shall be included in the rates and prices | | | | | CI |
| 7.01 | Excavate to spoil in soft materials. | m ³ | 8,000 | | | |
| 7.02 | As item 7.01 but in hard material. | m³ | 800 | | | |
| 7.03 | Provide,place and compact rockfill below and around strucures. | m ³ | 6,500 | | | |
| 7.04 | Provide and place 150mm thick stone pitching as directed by the Engineer including cement grouting | m ² | 100,000 | | | |
| 7.05 | Excavate for gabions in soft material. | m ³ | 1,740 | | | |
| 7.06 | Provide and place gabion boxes and matresses where directed by the Engineer. | m² | 4,000 | | | |
| 7.07 | Rockfill to gabious. | m³ | 4,670 | | | |
| 7.08 | Filter fabric behind gabion boxes. | m ² | 2,000 | | | |
| 7.09 | Provide and backfill approved material around new structures, compact 100% MDD (AASHTO T99) in layers not exceeding 150mm. | m³ | 6,800 | | | |
| 7.10 | Allow for the provision and removal of cofferdams or other measures for the exclusion of water from site and for protection of works against floods. | LS | 1 | 2,000,000 | 2,000,000 | |
| 7.11 | River Trainning in Soft Material | m3 | 500 | | | |

| ITEM | DESCRIPTION | | | l L | AMOUNT | |
|-------|---|----------------|-------------|--------------|---------------|----|
| | | UNIT | QTY | RATE | SHS | CT |
| | Note: No separate payments shall be made for gravel for blinding or hauling to spoil unsuitable excavation materials and the cost of such shall be included in the rates and prices | 0.122 | V | IIII | 5125 | |
| 8.01 | Excavation in soft material for pipe culverts,headwalls, wingwalls, apron, toewalls,and drop inlets and compact as directed by the engineer | M ³ | 1000 | | | |
| 8.02 | Provide,lay and joint 600mm dia. concrete pipes | М | 300 | | | |
| 8.03 | Provide,lay and joint 900mm dia. concrete pipes | М | 500 | | | |
| 8.04 | As Item 8.02 but Ø 450mm | М | 0 | | | |
| 8.05 | Provide and place class 15/20 concrete to beds, surround and haunches | M ³ | 1400 | | | |
| 8.06 | Provide, place and compact class 25(20) concrete for headwalls, wingwalls, aprons, and toewalls to access and cross pipe culverts including all form work | M^3 | 500 | | | |
| 8.07 | Provide and place 150mm thick stone pitching as directed by the Engineer including cement grouting | М | 2,000 | | | |
| 8.08 | Allow for construction of 16 No. Water Pans along the road at locations instructed by the Engineer | LS | 1 | 16,000,000 | 16,000,000 | |
| | Total of Bill Carried Forward to Summary | | | | | |
| | BILL 9: PAS | SAGE OF | TRAFFIC | | | |
| ITEM | DESCRIPTION | LINITE | OTW | DATE | AMOUNT | СТ |
| HEN | DESCRIPTION | UNIT | QTY | RATE | SHS | CI |
| 9.01 | Allow for passage of traffic through the Works Total of Bill Carried Forward to Summary | Km | 50.0 | | | |
| | BILL 12: NATURAL MATER | IAL RAS | E AND SURI | RASE | | |
| | | 11111111111 | STITLE GODI | | | |
| ITEM | DESCRIPTION | UNIT | оту | RATE | AMOUNT SHS | |
| | | | - | | | |
| 12.01 | Provide, place, spread and compact natural gravel for subbase/base | M^3 | 60,000 | | | |
| | | | | | | |
| | Total of Bill Carried Forward to Summary | | | | | |
| 1 | BILL 15: BITUMINOUS SURFACE TREA | ATMENT | S AND SURE | ACE DRESSING | | |
| ITEM | DESCRIPTION | UNIT | QTY | RATE | AMOUNT SHS | |
| 15.01 | Prepare surface of road base and shoulders provide and spray MC-30 cutback bitumen prime coat at a rate of 0.8-1.2 1/m ² | Lts | 0 | | | |
| 15.02 | Prepare surface of road base and shoulders, Provide, heat and spray 80/100 bitumen on the carriageway and shoulders at a rate of 1.0-1.2 Litres/m2. | Litres | 0 | | | |
| 15.03 | Prepare surface of road base and shoulders, Provide, transport, lay and roll 10/14 mm Class 1 and above pre-coated with MC 30, chippings at a rate of 90-110m2/m3 | m3 | 0 | | | |
| | Provide & spay K1-60 as tack coat on carriageway, rate of 0.5- | | | | | |

| | BILL 16: BITUMINOUS MIXES | | | | | | |
|-------|--|----------------|-----|------|--------|--|--|
| | | | | | AMOUNT | | |
| ITEM | DESCRIPTION | UNIT | QTY | RATE | SHS | | |
| 16.01 | Provide, lay and compact Asphalt Concrete for pothole patching and regulation as directed by the Engineer | M^3 | 0 | | | | |
| | | | | | | | |
| 16.01 | Provide, lay and compact 50mm Asphalt Concrete Type I wearing course as directed by the Engineer at a nominal Bitumen Content of 5 - 6% by weight of total mix | M ³ | 0 | | | | |
| | Total of Bill Carried Forward to Summary | | | | | | |

BILL NO. 17. CONCRETE WORKS

| ITEM | DESCRIPTION | UNIT | QTY | RATE | AMOUNT |
|-------|--|----------------|-------|------|--------|
| | BRIDGES AND BOX CULVERTS | | | | |
| | Concrete | | | | |
| 17.01 | Provide, place and compact Class 15(20) concrete blinding as instructed by the Engineer | m ³ | 190 | | |
| 17.02 | Provide, place and compact concrete class 25(20) to aprons, wingwalls, abutments and piers, walls and slabs for the Box culverts and bridges as shown in drawings. | m ³ | 3,200 | | |
| 17.03 | Provide, place and compact concrete class 30(20) to main beams, cross-beams .deck and approach slabs as shown in drawings. | m ³ | 420 | | |
| | Reinforcement: Provide, cut. bend & fix into position steel reinforcement as shown in the drawings or as instructed by the Envineer | | | | |
| 17.04 | High yield reinforcement steel bars to BS 4461 equal to or less than 12mm diameter bar size | Tonne | 142 | | |
| 17.05 | High yield bond strength reinforcement steel to BS 4461equal to and greater than 16mm diameter bar size | Tonne | 386 | | |
| | Fornwork: Provide.erect and afterwards dismantle and remove all the formwork as specified by the Engineer | | | | |
| 17.16 | Provide & fix in place formwork to achieve class F1 finish | m ² | 4,076 | | |
| 17.17 | Provide formwork to achieve class F3 finish | m ² | 5,076 | | |
| | | | | | |
| | Bill No. 17 Total Carried Forward to Grand Summary | | | | |

| | | 1 | | | AMOUNT |
|-------|--|----------------|-----|------|--------|
| ITEM | DESCRIPTION | UNIT | QTY | RATE | SHS |
| 20.01 | Excavate for , provide and place 100 x 125 mm class 25/20 precast concrete flushed kerbs in support of carriageway | М | 0 | | |
| 20.02 | Provide and erect warning type signs | No | 20 | | |
| 20.03 | Provide and erect standard informatory signs 400*300mm | No | 20 | | |
| 20.04 | Paint 0.1m Wide Thermoplastic yellow centre line | M ² | 0 | | |
| 20.05 | Paint 0.1m Wide Thermoplastic white line on the road | \mathbf{M}^2 | 0 | | |

BILL NO. 21: MISCELLANEOUS BRIDGE WORKS

| ITEM | DESCRIPTION | UNIT | QTY | RATE | AMOUNT |
|-------|---|----------------|-------|------|--------|
| | | | | | |
| 21.01 | Form 75-100 mm weepholes sloped to suit in abutments and and structural walls of structures | No | 560 | | |
| | | | | | |
| 21.02 | Form holes 75-100mm dia in deck slab and insert heavy duty PVC 100mm diameter 600mm long, top sealed with perforated steel grating | No | 560 | | |
| | | | | | |
| 21.03 | Provide and install elastomeric bearings LEB IRHD size 500 x 450x 54 mm thick, | No | 20 | | |
| | | | | | |
| 21.04 | Providing and placing bitumen emulsion or cutback bitumen or bitumen/rubber latex emulsion to all structural concrete in contact with fill material or cut soil. | m ² | 2,000 | | |
| | | | | | |
| 21.05 | Provide and place into position handrails along the edge of the carriageway as per drawings and as instructed by the Engineer. | m | 397 | | |
| | | | | | |
| 21.06 | Provide and place into position galvanised flexi-beam guardrails including end pieces, nuts and bolts along the approaches to the bridges as per drawings and as instructed by the Engineer | m | 415 | | |
| | | | | | |
| 21.07 | Movement joints at abutments and piers including dowels | m | 30 | | |
| | 25mm thick 'flex cell' or similar approved low compression joint filler at expansion joint | m | 30 | | |
| 21.08 | Paraseal or similar approved cold poured polysulphide sealant | m | 30 | | |
| | | | | | |
| 21.09 | Provide and place a 0.5m wide drainage layer of class 14/20 mm to structural concrete in contact with fill material. | m3 | 240 | | |
| | | | | | |
| | Bill No. 21 Total Carried Forward to Grand Summary | | | - | |

| DODGEI | NTERVENT | TION SCHEDULE | | | |
|---------|------------|-----------------------|---------------------|--------------------|--------|
| KOI SEI | DINIERVENI | TION SCHEDULE | | | |
| S/No. | Chainage | Proposed Intervention | Revised Size | Stream Name | Length |
| 1 | 2+700 | Burred drift | 10x70 | Kinisa flood Plain | 70 |
| 2 | 3+100 | Bridge | 60m | Kinisa river | 60 |
| 3 | 10+600 | Burred drift | 9x30 | Yabalo town | 30 |
| 4 | 52+200 | Box Culvert | 2 cell 5x2.5m | Katamaa stream | 10 |
| 5 | 54+830 | Vented Drift | 2no. cell 5m x 1.2m | Far-Lebi | 10 |
| 6 | 57+720 | Vented Drift | 2no. cell 5m x 1.2m | Bambaa | 10 |
| 7 | 59+550 | Box Culvert | 1no. cell 4m x 2m | Kambi | 11 |
| 8 | 67+560 | Vented Drift | 1no. cell 5m x 1.2m | Far-Gumar | 10 |
| 9 | 72+200 | Burred drift | 9 x 12 | ш | 10 |
| 10 | 74+900 | Box Culvert | 2no. cell 4m x 2m | Qarsabula1 | 12 |
| 11 | 73+820 | Burred drift | 1no. cell 5m x 1.2m | Qarsabula2 | 10 |
| 12 | 80+400 | Burred drift | 1no. cell 5m x1. 2m | Qarsabula3 | 12 |
| 13 | 84+160 | Box Culvert | 3no. cell 4m x 2m | Lag Jarra | 12 |
| 14 | 84+240 | Box Culvert | 1no. cell 4m x2m | н | 12 |
| 15 | 86+900 | Burred drift | 2no. cell 5m x 1.2m | Handarak | 10 |

SUMMARY OF BILL OF QUANTITIES

| BILL ITEM | DESCRIPTION | AMOUNT(KShs) |
|------------------|---|--------------|
| 1 | Preliminaries and General Items | |
| 4 | Site Clearance and Top Soil Stripping | |
| 5 | Earth Works | |
| 7 | EXCAVATION AND FILLING OF STRUCTURES | |
| 8 | Culverts and Drainage Works | |
| 9 | Passage to Traffic | |
| 12 | Natural Gravel Base and Subase | |
| 15 | Bituminous Surface Treatment and Surface Dressing | |
| 16 | Bituminous Mixes | |
| 17 | CONCRETE WORKS | |
| 20 | Road Furniture | |
| 21 | MISCELLANEOUS BRIDGE WORKS | |
| (A) | SUB-TOTAL (1) | |
| (B) | Add 25% VARIATION OF PRICE of sub total (1) | |
| (C) | Add 5% CONTIGENCIES of sub total (1) | |
| (D) | SUB-TOTAL $(2) = (A + B + C)$ | |
| (E) | Add 16% VAT of sub-total (2) | - |
| | Grand Total Carried to Form of Bid | - |