BILL OF QUANTITIES FOR UPGRADING TO BITUMEN STANDARDS OF KARANJEE LOOP ROADS, ACCESS TO LIMURU GIRLS & LIMURU (JNCT EQUITY), ACCESS LOOP TO ST. PAUL'S PRIMARY SCHOOL / MARAMBA TEA FACTORY - KAMWAKI/BATA LOOP - MURENGETI & ACCESS ROADS BILL NO. 1. PRELIMINARIES AND GENERAL ITEMS **ITEM DESCRIPTION UNIT QTY RATE AMOUNT** 1.01 Provide or rent accomodation for Engineer's senior and junior staff (i)Type I - 1 No. Month 36 65,000.00 2,340,000.00 (i)Type II - 1 No. 36 55,000.00 1,980,000.00 Month (iii) Type III - 1 No. 36 40,000.00 1,440,000.00 Month (iv) Type IV - 2 No. 72 2,160,000.00 Month 30,000.00 (v) Type V - 3 No. Month 108 21,000.00 2,268,000.00 **Total** 10,188,000.00 % 1.02 E.O item 1.01 for contractor's overhead and profit 1.03 Provide or rent and maintain Engineer's Representative's office as shown on the drawings or as instructed by the LS Engineer for use during the duration of the Contract, ownership to revert to the Contractor at the end of the 1 Contract Provide or rent and maintain Engineer's Site Laboratory for the duration of the Contract, ownership to revert to LS 1.04 1 the Contractor at the end of the Contract Provide and maintain Laboratory equipment, reagents and other items as priced in Appendix 'A' to the Bill of LS 1.05 1 Quantities for use by the Engineer's representative for the duration of the contract, ownership to revert to the Employer at the end of the Contract. Provide and maintain furniture, tools and other items for the Engineers Representative office for the duration of LS 1.06A 1 the Contract as priced in Appendix 'B', ownership to revert to the Employer at the end of Contract. Provide and maintain survey equipment as priced in Appendix C for the duration of the contract, ownership to 1.06B 1 LS revert to the Employer at the end of Contract. Provide with drivers, fuel and maintain Two (2) new 4WD fully loaded Station Wagon of minimum diesel 1.07 engine capacity 2800 CC approved by the Engineer for his exclusive use, inclusive of the first 5000km per Veh Month 36 vehicle month. Vehicle to revert to the Contractor at the end of the project. 1.08 E.O item 1.07 for total aggregated mileage in excess of 5000 km per vehicle month. Km 50,000 Provide with drivers, fuel and maintain one (1) new 4WD fully loaded double cabin pick-up of minimum diesel 1.09 engine capacity 2500 CC approved by the Engineer for his exclusive use, inclusive of the first 5000km per Veh Month 36 vehicle month. Vehicle to revert to the Contractor at the end of the project. 50,000 1.10 Km E.O item 1.09 for total aggregated mileage in excess of 5000 km per vehicle month. 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 1.11 Veh Month 72 revert to the Contractor at the end of the project. E.O item 1.11 for total aggregated mileage in excess of 5000 km per vehicle per month. 50,000 1.12 Km 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. E.O item 1.13 for total aggregated mileage in excess of 5000 km per vehicle per month. 1.14 50,000 Km Allow a Prime Cost Sum of Kshs. 7,500,000.00 for the RE's miscellaneous account to be spent in whole or part PC Sum 1.15 as directed by the RE against receipts. E.O. item 1.15 for Contractor's overheads and profits. % 1.16 PC Sum 1.17 Allow a Prime Cost Sum of Kshs. 13,500,000.00 for attendance upon the Resident Engineer' staff. 1 1.18 E.O. item 1.17 for Contractor's overheads and profits. 1.19 Provide, erect and maintain publicity signs as directed by the Engineer. 24 No 0 Allow for lumpsum for Engineer's training PC Sum 1.20 Bill No. 1 Total Carried Forward to Grand Summary 10,188,000.00 BILL NO. 4 : SITE CLEARANCE AND TOP SOIL STRIPPING **QTY ITEM DESCRIPTION UNIT RATE AMOUNT** 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 Clear site on road reserve including removal of all growths, bushes, hedges, trees, stumps, grub up roots, and 4.01 other deleterious materials and back-fill and compact to 100% MDD(AASHTO T99) with approved material as Ha. 33 directed by the Engineer. Strip top soil upto 0.2m in thickness along alignment or material sites including removal of all grass and other 4.02 64,800 m^3 vegetation, transport to spoil and spread or stock pile for re-use as directed by the Engineer. Provide KShs. 1,000,000.00 for the removal of structures and obstructions as instructed by the Engineer to be 4.03 Prov. Sum 1 paid on dayworks basis 0.00 Bill No. 4 Total Carried Forward to Grand Summary **BILL NO. 5: EARTHWORKS ITEM DESCRIPTION UNIT QTY RATE AMOUNT** 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 Fill in soft material including benching of shoulders and embankments and compaction to 95% MDD (AASHTO 5.01 m^3 84,000 T99) in layers not exceeding 150mm 5.02 Extra Over Item 5.01 for compaction of the top 300 subgrade to 100% MDD. m^3 50,400 5.03 Ditto item 5.01 but in hard material m^3 48,000 5.04 Cut to spoil in soft material m^3 84,000 5.05 Ditto item 5.04 but in hard material m^3 10,000 Provide improved subgrade material as instructed by the Engineer and compaction to 100% MDD (AASHTO 44,100 5.06 m^3 5.07 Compaction of top 300mm below formation level in cuts to 100% MDD.(AASHTO T99) m^3 25,000 5.08 m^3 13,000 Compaction of 150mm original ground below fills to 95% MDD.(AASHTO T99) 5.09 Top-soiling prior to planting grass as directed by the Engineer m^2 47,000 Grassing as directed by the Engineer 47,000 5.10 m^2 m^3 0 5.11 Provide Rock Fill to swampy areas as directed by Engineer Provide Filter fabric to swamp under, over and around rock fill 0 5.12 m^2 Provide and install geogrids m^2 0 5.13 0.00 Bill No. 5 Total Carried Forward to Grand Summary BILL NO. 7: EXCAVATION AND FILLING OF STRUCTURES **ITEM DESCRIPTION UNIT AMOUNT QTY RATE** 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 7.01 m^3 9,900 Excavate to spoil in soft materials. 7.02 As item 7.01 but in hard material. 990 m^3 7.03 Provide, place and compact rockfill below and around structures. 10,000 m^3 m^2 7.04 Provide and place 150mm thick stone pitching as directed by the Engineer including cement grouting 17,000 Excavate for gabions in soft material. 7.05 240 m^3 7.06 Provide and place gabion boxes and matresses where directed by the Engineer. m^2 1,100 7.07 200 Rockfill to gabions m^3 200 7.08 Filter fabric behind gabion boxes and structures m^2 Provide and backfill approved material around new structures, compact 100% MDD (AASHTO T99) in layers 7.09 m^3 2,000 not exceeding 150mm. Allow for protection of structures pursuant to Section 708 of the specifications LS 7.10 m^3 7.11 Allow for river training in soft material 0 m^3 0 7.12 Allow for river diversion 7.13 Provide coffer dams as directed by the Engineer. 0 LS 0.00 Bill No. 7 Total Carried Forward to Grand Summary **BILL NO. 8. CULVERTS AND DRAINAGE WORKS ITEM DESCRIPTION UNIT AMOUNT OTY RATE** 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 Excavate for inlet, outfall, mitre and catch water drains in soft material m^3 3,000 8.01 As per item 8.01, but for hard material m^3 300 8.02 Excavation in soft material for pipe culverts, headwalls, wingwalls, apron, to ewalls, and drop inlets and compact 8.03 m^3 500 as directed by the Engineer 50 m^3 8.04 As per item 8.03, but for hard material Provide, lay and joint 600mm dia. concrete pipes (precast to BS 5911 Parts 1 & 3) for access roads 2,300 8.05 m As for item 8.05 but 900mm dia concrete pipes (precast to BS 5911 parts 1 & 3) for cross culverts 180 8.06 m 20 8.07 As for item 8.05 but 1200mm dia concrete pipes (precast to BS 5911 parts 1 & 3) for cross culverts m m^3 1,480 8.08 Provide and place class 15/20 concrete to beds, surround and haunches Provide, place and compact class 25(20) concrete for headwalls, wingwalls, aprons, and toewalls to access and 8.09 cross pipe culverts including all form work and the provision and placing of reinforcement as shown in the 1,000 m^3 drawings 1,850 m 8.10 Provide and place invert block drains with two course side slabs m^3 50 8.11 Construct in concrete class 15(20) side drains scour checks as instructed Provide and place precast concrete slabs 600mm x 600mm x 100mm and place over open lined drains in trade 0 8.12 No. centres and markets (reinforced with A142 wire mesh reinforcement) Provide subsoil filter drains fabric to isolated wet spots inclusive of artesian cloth, and 14/20mm single size 8.13 0 m aggregates as directed by the Engineer 8.14 500 m Remove existing pipe culverts of any diameter either for re-use or to be discarded as directed by the Engineer 8.15 0 Provide and place A142 wire mesh reinforcement m^2 Provide, lay and joint ducts and sleeves including 150mm concrete (C15/20) (insert size in mm) heavy duty PVC 0 class B with 150mm surround (precast to BS 5911 Parts 1 & 3) ducts/sleeves 8.15 m Bill No. 8 Total Carried Forward to Grand Summary **BILL NO. 9: PASSAGE OF TRAFFIC ITEM DESCRIPTION UNIT RATE AMOUNT QTY** NOTE: Notwithstanding the provision of Section 9 of the Standard Specification, no extra payments shall be due as all costs shall be deemed to be included in the rates inserted herein Construct and maintain diversions in maximum lengths of 5km sections as directed by the Engineer, including 9.01 27 Km 150mm wearing course gravel all signage, lighting and barriers Grade, water and compact existing road; provide, spread, water and compact gravel as directed by the Engineer 9.02 Km 81 for maintenance ahead of works. LS 9.03 Allow for the passage of traffic through and around the works 1 Bill No. 9 Total Carried Forward to Grand Summary BILL NO. 10: GRADING AND GRAVELLING WORKS **ITEM DESCRIPTION UNIT RATE AMOUNT QTY** Note: No separate payments shall be made for gravel for blinding or hauling and the cost of such shall be included in the rates and prices Provide gravel wearing course, spread and compact to a finished thickness of 150mm to at least 95% M.D.D. 10.01 m^3 23,400 (AASHTO T-180) and shape to level and tolerance. Bill No. 10 Total Carried Forward to Grand Summary BILL NO. 13: GRADED CRUSHED STONES AND HAND PACKED STONES FOR SUBBASE AND BASE **ITEM DESCRIPTION QTY UNIT RATE AMOUNT** Provide, Lay, spread and compact Crushed Soft Stone/Gravel for Sub-base as per Drawings and Specifications m^3 13.01 24,150 13.02 Provide, Lay, spread and compact Graded Crushed Stone for base as per Drawings and Specifications m^3 21,735 Provide, hand pack stones, apply granular material and compact the layer to refusal as directed by the Engineer. 13.03 m^3 0 The excess granular material shall be throughly swept. Bill No. 13 Total Carried Forward to Grand Summary 0.00 BILL NO. 15: BITUMINOUS SURFACE TREATMENT & SURFACE DRESSING TO SHOULDERS **DESCRIPTION ITEM UNIT QTY RATE AMOUNT** Prepare surface of carriageway and shoulders, provide, heat and spray MC 30 cutback bitumen prime coat at 0.8-15.01 Litres 148,000 1.2 Litres/m2. Prepare surface of carriageway and shoulders, provide, heat and spray 80/100 bitumen seal coat as first seal at a 15.02 Litres rate of 1-1.2 Litres/m2. 0 m^2 15.03 Provide, spread and roll 14/20mm precoated chippings 0 Prepare surface of carriageway and shoulders, provide, heat and spray 80/100 bitumen seal coat as second seal at 15.04 Litres 0 a rate of 0.8-1.0 Litres/m2. m^2 15.05 0 Provide, spread and roll 10/14mm precoated chippings Prepare surface of carriageway and shoulders, provide, heat and spray 80/100 bitumen seal coat as third seal at a 15.06 Litres rate of 0.6- 0.8 Litres/m2. 0 15.07 m^2 Provide, spread and roll 6/10mm precoated chippings Provide & spray K1-60 as tack coat on carriageway, shoulders and on rumble strips at a rate of 0.5-0.8 1/m² Litres 89,600 15.08 Bill No. 15 Total Carried Forward to Grand Summary 0.00**BILL NO. 16: BITUMINOUS MIXES ITEM DESCRIPTION UNIT AMOUNT QTY RATE** Provide, place and compact Asphalt Concrete Type II to a thickness of 35 mm on carriageway and bus bays as 16.01 m^3 4,508 directed by the Engineer at Bitumen Content of 5.5 - 7.0% by weight of total mix. Provide, place and compact Asphalt Concrete Type II to a thickness of (insert layer thickness) mm on shoulders m^3 16.02 N/Aas directed by the Engineer at Bitumen Content of 5.5 - 7.0% by weight of total mix. Provide, place and compact Asphalt Concrete Type I (0/14) to a thickness of (insert layer thickness) mm on 16.03 m^3 N/Acarriageway and bus bays as directed by the Engineer at Bitumen Content of 5.5 - 7.0% by weight of total mix. m^3 N/A 16.04 Provide, place and compact Asphalt Concrete Type I (0/14) to a thickness of (insert layer thickness) mm on shoulders as directed by the Engineer at Bitumen Content of 5.5 - 7.0% by weight of total mix. Provide, place and compact Asphalt Concrete Type I (0/20)/SUPER PAVE to a thickness of (insert layer 16.05 thickness) mm on shoulders as directed by the Engineer at Bitumen Content of 5.5 - 7.0% by weight of total m^3 N/A mix. Provide, place and compact Asphalt Concrete Type I (0/14) for bumps and rumble strips as directed by the m^3 16.06 Engineer at Bitumen Content of 5.5 - 7.0% by weight of total mix. 0 **Dense Bitumen Macadam** Provide, lay and compact to a thickness of (Insert thickness) mm DBM Base Course on main carriageway, bus 16.09 m^3 N/A N/Abays, & shoulders; all in accordance with the specifications and as directed by the Engineer. Bill No. 16 Total Carried Forward to Grand Summary 0.00**BILL NO. 20: ROAD FURNITURE ITEM UNIT DESCRIPTION QTY RATE AMOUNT** Provide Road Reserve Boundary posts No. 216 20.01 Excavate for, provide & place 250 x 125mm precast concrete raised or ramped kerbs haunched in 100mm thick 20.02 class 15/20 concrete base bedding and mortar joined in support to carriageway, busbays and junctions as directed by the Engineer. a) Straight kerbs 3,000 m b) Kerbs radius 12m - 6m 500 m 300 c) Ditto but radius 5m - 1m m 20.03 As 20.02 but for flush kerbs 100 x 125mm 3,000 m Provide and erect permanent road signs where instructed by the Resident Engineer and in accordance with 20.04 Special Specifications Clause 2004 as follows: a) warning signs No. 20 b) Priority prohibitory and mandatory signs No. 20 20 c) Standard informatory signs No. d) Non standard informatory signs area 5 i) Less than 1.0m² No. ii) More than 1.0m² but less than 5m² 5 No. Provide, deliver, paint and mark the road as specified or as directed by the Engineer, with white reflectorized 20.05 m^2 3,080 thermoplastic paint from an approved supplier. m^2 20.06 As item 20.05 but for yellow reflectorized thermoplastic paint 1,540 Provide and erect concrete posts for guardrails complete with spacers (size and interval) as per specifications or 20.07 No. 100 as directed by the Engineer Provide and erect flex-beam guardrails complete with connections as shown on the drawings or as directed by 20.08 100 m the Engineer 20.09 Provide Edge marker posts No. 20 20.10 Provide kilometre marker posts as directed by the Engineer No. 54 0 20.11 Installation of fencing m 0 20.12 Installation of gates No. 20.13 Construction of speed bumps with Concrete as directed by engineer 0 m^3 0 20.14 Provide and install cat-eyes as directed by the Engineer No. Provide, plant, and nurture tree seedlings for a period not less than half the construction period of the project or 20.15 0 No. as directed by the Engineer. Provide and install new guard rails as directed by the Engineer. 0 20.16 m Provide and install new guard rail posts including anchor bolts and nuts as directed by the Engineer. 0 20.17 m 0 20.18 Provide and install new hand rails as directed by the Engineer. m 0.00**BILL NO. 22: SCHEDULE OF DAYWORKS ITEM DESCRIPTION UNIT QTY RATE AMOUNT PLANT** The rates inserted herein are to include all operational and Maintenace costs, fuel, oil, grease, Crawler dozers with hydraulic attachments to include ripper 22.01 a) Up to 135 kw rated flywheel power hrs 10 b) Over 135 kw rated flywheel power 4 hrs 22.02 Motor Grader a) Up to 110kw rated flywheel power 5 hrs 5 b) Over 110kw rated flywheel power hrs 22.03 Vibratory Roller a) 6.5 - 8.81 tonne un-ballasted weight 5 hr b) Over 8.91 tonne un-ballasted weight 5 hr 22.04 Hand propelled vibrating roller 650 - 1300kg 5 hrs 5 22.05 Cat 950G wheel loader or equivalent hrs 22.06 10 Tonne tipper lorry 5 hrs 22.07 Small dumpers, 750-1000kg rated payload 5 hrs Dual purpose hydraulic excavator with backhoe/loader and a rated bucket capacity of upto 1m3. 5 22.08 hrs Articulated wheel loader with 1.5-2.0m³ SAE rated bucket capacity 22.09 5 hrs 5 50mm delivery water pump and motor 22.10 hrs 22.11 Self propelled water tanker 4,500ls min. capacity with pick-up pump hrs 5 5 22.12 Concrete Mixer of 100 - 150litres hrs Concrete poker vibrator 5 22.13 hrs **LABOUR** The rates inserted herein are to include all costs of labour such as insurance, accomodation, travelling time, over-time, use and maintenance of small tools of trade. Only the actual time engaged upon the work will be 22.14 Unskilled Labour hrs 10 22.15 Artisans 10 hrs 22.16 Office attendants and chainmen 10 hrs 22.17 Watchmen (all round surveillance) 10 hrs TOTAL CARRIED FORWARD TO THE NEXT PAGE **QTY AMOUNT ITEM DESCRIPTION UNIT RATE** TOTAL BROUGHT FORWARD 0 **MATERIALS** All materials are to comply with the Specification. The rates inserted herein are to include for delivery to the site, storage, handling, overheads and profit Ordinary Portland Cement 42.5 N 22.18 Ton Hydrated Lime 22.19 Ton Mild Steel(any diametre) 22.20 Ton High Yield Steel (any diameter) 22.21 Ton 22.22 Fine Aggregate for Concrete m^3 1 22.23 Coarse Aggregate for Concrete m^3 5 22.24 Wrot Shuttering Timber m^2 5 m^2 22.25 Rough shuttering timber. 5 Bitumen Emulsion KI-60. 5 22.26 Litre 5 22.27 Straight run bitumen Grade 80/100. Litre 22.28 Kerosene 5 Litre m^3 5 22.29 14/20 mm nominal size surface precoated chippings m^3 5 22.30 6/10mm nominal size surface precoated chippings AC Type I Ex-plant 5 m^3 AC Type II Ex-plant m^3 5 22.32 5 Dense Bitumen Macadam m^3 22.33 Bill No. 22 Total Carried Forward to Grand Summary 0.00 **BILL NO. 23: PILING WORKS DESCRIPTION ITEM** UNIT **QUANTITY RATE AMOUNT** Allow for bringing all plant, equipment and materials necessary for piling and removal after completion. L/sum N/A 23.01 N/A 23.02 Move and set up piling rig for piling on each pile position No. Form 600mm diameter cast insitu reinforced concrete piles. Pile capacity 1750KN reinforced full length. Pile M N/A 23.03 23.04 Allow for sets of projecting steel reinforcements 1000mm from top of the piles N/ANo. N/A 23.05 Allow for trimming piles to level and bedding projecting reinforcement to shape No. Allow for testing working piles (2No at abutments position) to one and half working load including all 23.06 N/A No. Allow for provision and erection of racked piles as per specifications or as directed by the Engineer. 23.07 LS. N/ABill No. 23: Total Carried Forward to Grand Summary **BILL NO. 24: STREET LIGHTING ITEM DESCRIPTION UNIT QTY RATE AMOUNT** Supply and install galvanized single bracket, boom < 1m, galvanized steel lighting columns till 8m above ground **24.01** and 1.2m below ground, according to specification andd approved by the Engineer. All columns shall be No. N/A installed with a triangular lock and three common keys. Allow the construction of pit for mounting of columns till 8m height, including excavation, filling and N/A 24.02 compaction concrete and concrete works, form works and all other related works. Dimensions according to No. attached drawings. 24.03 Supply and install rail mountied class "MCBs" mounted in column for high pressure sodium lamps. No. N/A Supply and install street lighting lantern IP66 complete with LED 74W;> 9100lm and control gear as Trilux 24.04 N/A No. 9711SG-AB7L/9100-740 10GIS ET or similar as specified. Supply and install street lighting lantern IP66 complete with high voltage pressure sodium lamp 24.05 N/A No. 250W/230V;>32000lm and control gear as Trilux 9721/250 HSE or similar as specified. Supply and install twin cable with earth rated according to VDE 0298-4, not less than 3 x 1.5mm2 from MCB 24.06 N/Am mounted in column luminaire. Supply and install weatherproof feeder pillar units according to IEC 60439-1 Degree of protection IP55, impact 24.07 No. N/A proection level K10 in accordance with specification, allowing for the circuitry shown on the drawing. Supply and install feeder pillar equipment and wiring according to IEC 60439-1 Degree of protection IP55, impact protection level K10 in accordinace with specification, drawing and incorporating 1) meter 2) Cut out 3) Isolator, 4) Mcb's 5) T.P and N Contactor, 6)RCB, 7) Surge protection device 8)4 Way T.P. and N distribution N/A 24.08 No. board. All equipment according to specification rated to BS EN and IEC as listed in the specification and approved by the Engineer. Allow for excavation for complete foundation for mounting feeder pillars as shown in the drawings. No. N/A Allow for concrete foundation base for mounting feeder pillars as shown on the drawings. N/A**24.10** No. Allow excavation, laying of 100mm PVC cable duct and warning tape, back filling and clearing reinstatement of 24.11 N/Am all as per specifications for power supply poles. Supply, install and connect4 core PVC SWA PVC street light cable complete with glands and accessories rated 24.12 N/A m according to VDE 0298-4 for power supply to poles. Supply and install single core earth cable, alongside the above power cable from feeder pillar to each circuit as 24.13 N/A m per the specifications. For the power to supply the poles. Allow 100mm thick concrete cover for cable in PVC duct for road crossing. N/A24.14 m Solidly earth every fourth street lighting columns with 1200mm copper earth electrodes complete with all 24.15 No. N/A accessories Allow 25 x 3mm earthing tape and earth pits to feeder pillars including 1200mm earth copper electrodes and N/A 24.16 No. other necessary accessories etc. as specified. Allow for the cable route markers at changes of direction and at intervals of approximately 30m (between street 24.17 No. N/Alighting columns) Supply and install weatherproof photocell units/control panels, Degree of protection IP55 as specified. 24.18 No. N/AAllow for excavation, laying of 100mm PVC Cable duct and warning tape, back filling and clearning 24.19 N/A m reinstatement, all as per the specifications for control cabling. Supply, install and connect PVC SWA PVC Cable complete with glands and accessories rated according to VDE 24.20 N/A m 0298-4 for control cabling. Supply and installation of step-down transformers, 11/0.4 Kv, 25Kva. Allow for all accessories including 24.21 N/A m concrete works and earthing. Allow for construction of 2 x 150mm concrete covered cable duct including excavation, concrete mix, back 24.22 N/A m filling for connection from power source to transformer. Supply, install and connect PVC SWA PVC Cable complete with glands and accessories rated according to BS N/A 24.23 m EN/IEC 60228 standards for connection from power source to transformer 24.24 Supply and install single core earth cable, alongside the above power cable as per the specifications. N/A m Allow for construction of 2 x 150mm concrete covered cable duct including excavation, concrete mix, 24.25 N/A m backfilling for connection from the transformer to feeder pillar. Supply, install and connect PVC SWA PVC Cable complete with glands and accessories rated according to VDE 24.26 N/A m 0298-4 for connection from transformer to feeder pillar. Supply and install single core earth cable, alongside the above power cable as per the specifications. N/A24.27 m Allow for construction of manholes along the duct including excavation, concrete and concrete works, form 24.28 N/A No. work, heavy duty covers and all other related works. Allow for Contractor's overheads and profits as a percentage of all supply and install items N/A Allow for provisionsal sum for payment for Power Company for incoming electricity supply to each feeder pillar LS N/A 24.30 Allow for liason with Power Company in connection with works for incoming electricity supply including LS 24.31 N/Amaking such power supply applications and submissions that they require Allow for all working drawings and schematic drawings prior to commencing LS N/A 24.32 Allow for the testing and commissioning fo the entire electrical system to the satisfaction of the Power Company 24.33 LS N/A & Engineer, including the provision of the equipment LS Allow for as installed drawings, manuals and details of equipment installed. 24.34 N/A BILL NO. 25: ENVIRONMENTAL, HIV/AIDS, AND COVID-19 MITIGATION MEASURES **ITEM DESCRIPTION UNIT QTY RATE AMOUNT** Allow for a prime cost sum for of KShs 2,000,000 (Two Million) for ESIA study, report, and environmental 25.01 PC sum monitoring. 25.02 E.O for Item 25.01 for Contractor's Oveheads and Profit Item Allow for engagement of a HIV/AIDS and COVID-19 specialist sub contractor to deal with prevention and 25.03 36 Months awareness activities as per programme to be approved by the Engineer Provide male and female condoms to workers and staff for the duration of the contract 10,000 25.04 No. Allow for preparation and submmision of monthly reports on HIV/AIDS and COVID-19 awareness and 25.05 Months 36 prevention activities. Report to be tabled at site meetings. Provide, Install and maintain HIV/AIDS and COVID-19 awareness bill boards with approved message and 25.06 No. 4 graphics with maximum area 4m² fabricated as per specifications of permanent informatory sign boards 25.07 Allow for video shows on HIV/AIDS and COVID-19 related awareness and prevention matters every 3 months Quartely 12 25.08 Provide HIV/AIDS and COVID-19 awareness material as follows: 90 No. a) T-Shirt printed with approved message and graphics 90 b) Ditto (a) above but caps No. c) A1 size weather proved posters 90 No. 90 d) A3 size weather proved posters No. e) 200x150mm stickers with HIV/AIDS and COVID-19 awareness/prevention slogan 90 No. 90 f) Key rings with HIV/AIDS and COVID-19 awareness/prevention slogan No. g) Ball point pens with HIV/AIDS and COVID-19 awareness prevention slogan. No. 90 Provide and maintain handwashing points at strategic locations as directed by the Engineer throughout the 25.09 20 No. construction period. Provide and maintain hand sanitizing points at strategic locations as directed by the Engineer throughout the 25.10 20 No. construction period. Provide face masks as specified or as shall be directed by the Engineer. 5,000 0.00 Bill No. 25 Total Carried Forward to Grand Summary BILL No. 26: LAND ACQUISITION, AXLE LOAD CONTROL, AND RELOCATION OF SERVICES Rate Amount **Description** Quantity **Item** Unit Allow a Prime Cost sum of (*Insert Amount*) for acquisition of land required for the works, etc. in accordance with PC 0 26.01 Specifications E.O. item 26.01 for allowance for Contractor's profit and overheads % 10% 26.02 Allow a Prime Cost Sum of KShs. 5,000,000.00 for relocation of services as instructed or directed by the 26.03 PC Sum 1 Engineer.. E.O. item 26.03 for Contractor's overheads and profits. % 26.04 Provide and maintain for the duration of the contract a mobile weigh bridge with manufacurers waranty, as 26.05 specified in Appendix 'E' in PDF file. The weigh bridge to revert to employer at commencement of the contract. No N/A Allowance for repairs and maintance MUST be included in the quotation. 0.00 Bill No. 26 Total Carried Forward to Grand Summary

CONTRACT NO.: RWC 684B GRAND SUMMARY OF BILL OF QUANTITIES UPGRADING TO BITUMEN STANDARDS OF KARANJEE LOOP ROADS, ACCESS TO LIMURU GIRLS & LIMURU (JNCT EQUITY), ACCESS LOOP TO ST. PAUL'S PRIMARY SCHOOL / MARAMBA TEA FACTORY - KAMWAKI/BATA LOOP -

BILL ITEM	D ST. PAUL'S PRIMARY SCHOOL / MARAMBA TEA FAC 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	
10	Grading and Gravelling Works	
13	Graded Crushed Stone and Handpacked Stone for Subbase and Base	
15	Bituminous Surface Treatment and Surface Dressing	
16	Bituminous Mixes	
20	Road Furniture	
22	Schedule of Dayworks.	
25	HIV/AIDS, Gender & Social Issues, Local Participation	
26	Relocation of Services and Land Aquisition	
(A)	SUB-TOTAL (1)	
(B)	Add 15% VARIATION OF PRICE of sub total (1)	
(C)	Add 5% CONTIGENCIES of sub total (1)	
(D)	SUB-TOTAL $(2) = (A + B + C)$	
(E)	Add 0.03% For PPCBL of sub total (1)	
(F)	Add16% VAT of sub-total (2)	
	TOTAL (D+E)	