

MARKET RATES FOR VARIOUS WORKS BILL ITEMS.

PRICE REFERENCE GUIDE
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Kenya National Highways Authority

Quality Highways, Better Connections

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ABBREVIATIONS AND ACRONYMS

KeNHA	Kenya National Highways Authority
BOQ	Bill of Quantities
CEM	Cost Estimation Manual
KNBS	Kenya National Bureau of Statistics
MoLSP	Ministry of Labour and Social Policy
MoTIHUD&PW	Ministry of Transport Infrastructure Housing Urban Development & Public Works
MTD	Mechanical And Transport Services Department
RA	Road Authorities
TOR	Terms of Reference
APRP	Annual Public Roads Programme

1 INTRODUCTION

1.1 Background

The Kenya Vision 2030 aims at creating a globally competitive and prosperous country with high quality of life by the year 2030. The plan is anchored on three pillars: The Economic, the Social and the Political. Infrastructure is considered one of the foundations and enablers of macroeconomic stability to support the three main pillars. The Third Medium Term Plan 2018 – 2022 (MTP III), which is currently under implementation, outlines the role of the sector in providing cost-effective first-rate infrastructural facilities and services for the 21st century. The roads sub-sector falls under infrastructure, which is one of the foundations of the three pillars, and its programmes and projects include expansion and maintenance of roads.

The Kenya National Highways Authority (KeNHA) is a statutory body established under the Kenya Roads Act, 2007 and is responsible for the development, rehabilitation, management and maintenance of all national trunk roads comprising Classes S, A, and B roads.

To achieve its mandate, the Authority in line with the Public Procurement and Disposal Act 2005 on a need be basis procures both local and international contractors to undertake the construction, rehabilitation maintenance works.

One of the major challenges currently faced by the authority during the procurement of the Contractors is the rapid and erratic changes in the prices of materials, labour and machinery as a result of inflation and geopolitical effect.

The above therefore, necessitated need for the Authority to undertake Market Survey with an overall objective of providing reliable, realistic and prevailing market prices for various Works Bill Items that would inform decision-making by the tender and procurement committees and enable the Authority to achieve value for money by procuring road works contracts at prevailing market prices

1.2 Purpose of the Price Reference Guide

The purpose of the guide is to provide prevailing standardized rates for materials, labour and machinery that can be used for pricing road activities in Kenya, to ensure uniformity in planning and evaluation of the rates by contractors, road agencies, county road departments and engineers.

The guide forms a crucial part of developing a best practice standard for the Authority to understand the pertinent issues in preparing cost-effective estimates for road construction and maintenance projects.

1.3 Application of the Price Reference Guide

The guide is to be applied in the preparation, evaluation and analysis of cost estimates for tender documentation by procurement entities and provides a benchmark for the evaluation of bidding prices.

The guide shall also be used for the formulation of annual work plans by the Authority and as an auditing tool for ongoing road works.

It can also be used as a reference for bidders to prepare their bidding documents while considering their unique cost settings.

2 DEVELOPMENT OF THE PRICE REFERENCE GUIDE

2.1 Documentation Review

A review of the existing documentation such as policies, cost estimations manuals, statistical abstracts, manuals and guides among other relevant documents was undertaken to ensure that the market survey data collection, analysis results and reporting are firmly anchored to the Kenya Public Procurement and Regulations Act and the International Bidding Procedures/Guidelines on Tenders and Procurement.

2.2 Market Surveys

Market surveys were undertaken in 22 towns with an objective of obtaining reliable and realistic prevailing market prices for the various unit costs of inputs that consider economic, geographical, political and administrative factors that affect road construction and maintenance costs.

The selection of representative regions was considered critical in order to ensure full coverage and adoption of the Price Reference Guide. The items that were surveyed included the unit prices of materials, machinery, labour and overheads. The rates for the various work Bill Items were obtained by sampling ongoing and completed maintenance works contracts. The following key items were put into consideration during the selection of the regions.

1. Variation in Labour Prices across the country
2. Terrain and Topography
3. Variation in Climatic Conditions
4. KeNHA Headquarters, ten (10) Regions and three (3) Corridor Offices
5. Major Trade and Transport Corridors

Table 2-1 below shows the market survey locations and distributed across the country.

Table 2-1: Proposed Market Survey Locations

Road	Length (km)	Counties Covered	Major Towns
Mombasa – Nairobi – Malaba (A8) Road	928	Mombasa, Lamu. Kilifi, Taita-Taveta, Makueni, Nairobi	Mombasa, Lamu Malindi, Voi, Nairobi.
Mau Summit – Busia (A12) Road	244	Nakuru, Narok Kisumu, Busia	Busia, Kisumu, Nakuru, Narok.
Namanga – Athi River (A2) Road	138	Kajiado	Kajiado.
Nairobi – Thika - Isiolo (A2) Road	272	Nyeri	Nyeri.
Isiolo – Moyale (A2) Road	500	Isiolo Marsabit	Isiolo. Marsabit, Moyale.

Road	Length (km)	Counties Covered	Major Towns
Ahero – Kisumu – Kakamega – Kitale (A1) Road	158	Kisii, Trans Nzoia Turkana, Uasin Gishu	Kisii, Eldoret, Kitale, Lodwar.
Thika – Mwingi – Garissa (A3) Road	323	Garissa, Wajir Kitui	Kitui, Garissa, Wajir Mandera.

Figure 2-1: shows the distribution of the survey locations on a map.

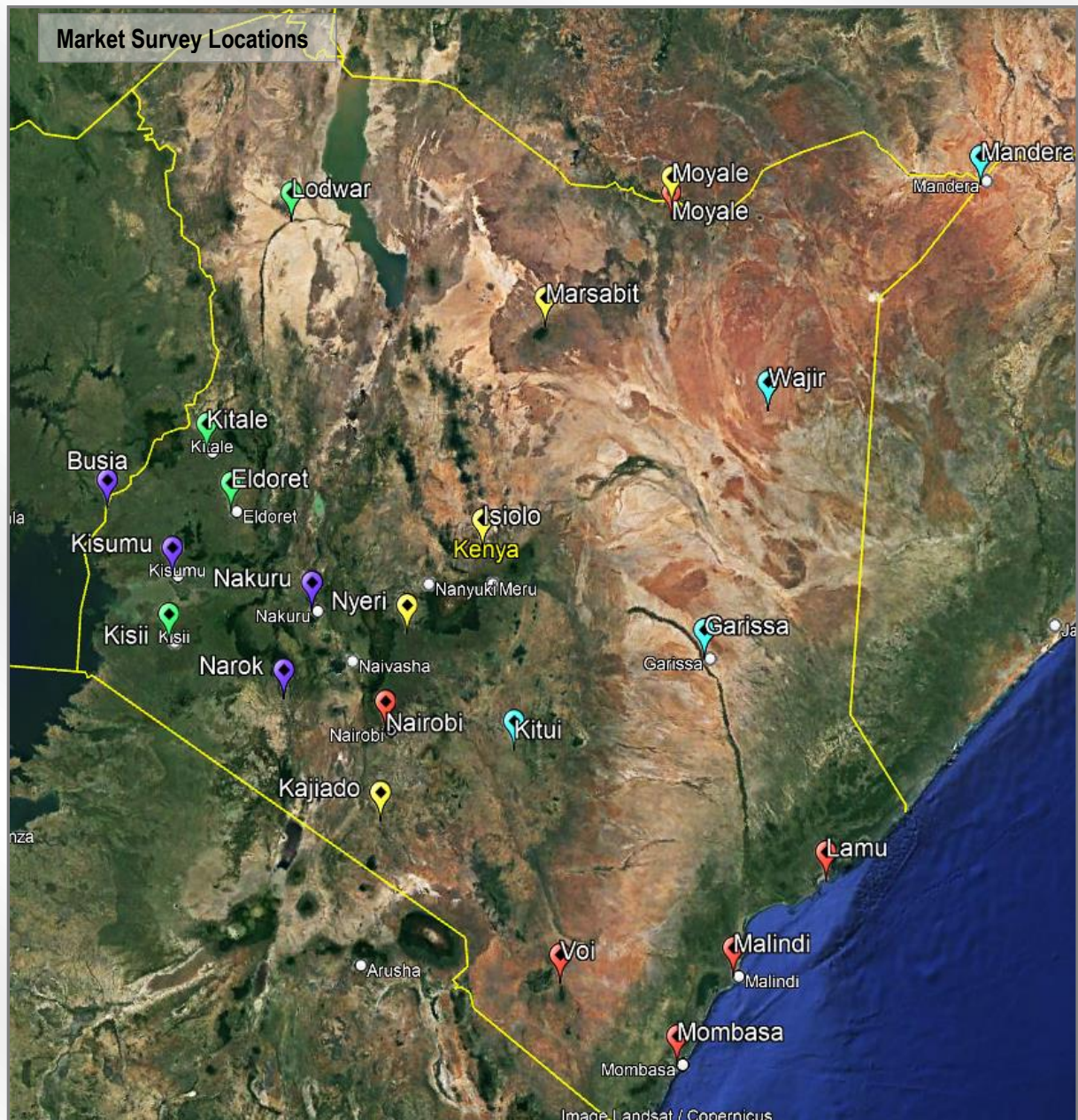


Figure 2-1: Proposed Survey Locations

Source: Google Earth

2.3 Data Collection Methodology

Primary Data Collection

In each of the selected 22 towns, Random sampling technique was used for the selection of suppliers as per the requirements of the ToR. Information was obtained by visiting the major hardware shops, warehouses, road contractors, concrete items manufacturers and material suppliers e.g., quarry owners etc. Online market surveys were also employed to retrieve information from available price lists on the internet and verified during the field surveys. The targeted number of hardware/suppliers to be surveyed per town was set at a minimum of three (3).

Secondary Data Collection

The following official rates from relevant government bodies and other recognized organizations were obtained and used in the development of the price reference guide.

Table 2-2: Sources of the Secondary Data

Item	Source	Document
Labour rates	Laws of Kenya	Regulation of Wages (General) (Amendment) Order, 2018 Legal Notice No. 2 of 2019
Fuel rates	Energy and Petroleum Regulatory Authority	Pump price list
Material Price	Kenya National Bureau of Statistics	KNBS price list
	Road Authorities	APRP reports awarded contracts
Machinery	Mechanical and Transport Services Department, MOTIHUD&PW	Mechanical and Transport Services Department Hire Rate List

Maintenance costs ongoing and completed works

Stratified sampling was adopted for the sampling of road construction and maintenance cost by selecting pre-qualified contractors who have worked with KeNHA across the regions and the corridors and grouping them based on the type and cost of the works, e.g., minor, major, etc. Bills of Quantities and Engineer's cost estimates were also collected from the KeNHA regional offices across the country.

Unit rates for indirect costs, overheads and profit and miscellaneous costs

The indirect costs, overheads and profit and miscellaneous costs are usually taken as a percentage of the direct costs.

1. Indirect costs - include site management costs, human resource management, staff allowances, safety measures and social charges;

2. Overheads and profit - include the head office management costs, head office staff salaries and allowances, corporate social charges, research and development, advertisement and publicity, depreciation costs and profit margins; and,
3. Miscellaneous costs include costs required for proper on-site control and provision of Personal Protective Equipment and any minor emerging costs.

Percentages were formulated for the above indirect costs by evaluating the costs of the same items from previous contracts in previous road construction and maintenance works carried out by KeNHA.

2.4 Raw Data Cleaning and Processing

Removal of Atypical Data

These include data sets collected during the surveys observed to be unrealistic, majorly because of vague/unclear specifications that do not conform to local standards.

Handling of Incomplete/ Missing Data

The unavailability of some items in some of the towns where the market surveys were undertaken resulted in incomplete/ missing data. These data have been populated based on data collected from other similar areas.

Filtering out Data Outliers

Outliers are data points that do not appear to fit within the data range you are analyzing and may skew your analysis too far in a certain direction. In our case, we considered deleting or averaging the data in order to obtain representative values.

Note: Numbers much smaller or larger than the other analyzed numbers don't mean the ultimate analysis will be inaccurate. The existence of an outlier doesn't mean that it shouldn't be considered. Consideration must be given to the kind of analysis being run and the effect removing or keeping an outlier will have on the results.

Checking Data Consistency

This involves checking on logic relations to ensure there are correlated data sets and no inconsistencies, including contradictions and gaps in data. In case of any inconsistencies between the data and the questionnaire, the issues should be flagged in order for you to decide a way forward or if data should be excluded from the final dataset.

Data Validation

As part of the validation exercise, at the end of the data cleaning process, we targeted answering the following questions.

- Does the data make sense?
- Does the data meet standards and specifications?
- Does it prove or disprove your working methodology?
- Can you find trends in the data?
- If not, is that because of a data quality issue?

Documentation of Changes

All the changes made we documented and an audit trail of errors detected kept to allow for alterations, additions, error checking and reverting to the original value if required.

3 CONTENTS OF THE PRICE REFERENCE GUIDE

3.1 Work Items Descriptions and Coding

The work items covered in this guide are presented in Chapter 6, together with their respective codes and descriptions. These comprise the common categories of works typically implemented in road construction and maintenance projects in Kenya.

The categorisation and grouping of the work items are based on the Standard Specifications for Road and Bridge Construction in Kenya.

3.2 Cost configuration

Road works comprise various work items that are aggregated to form a work package. The total cost of a work package is determined by summing the cost of all work items and applying the relevant cost factors, as shown in Figure 3-1.

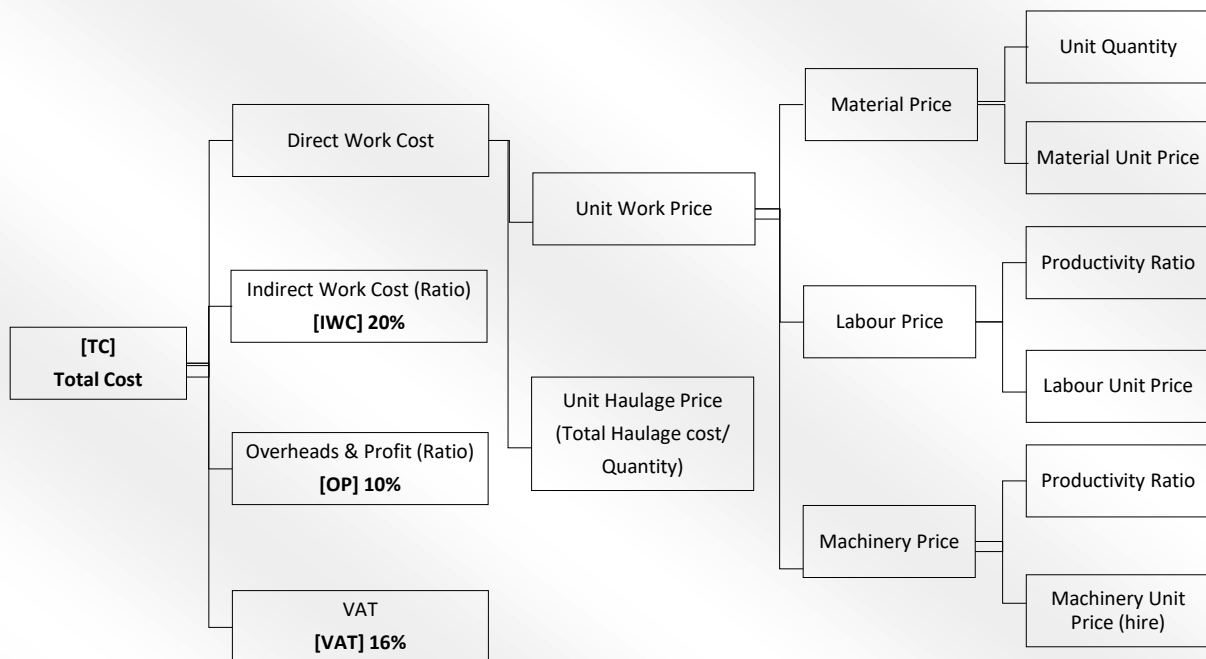


Figure 3-1: Cost configuration

The total cost configuration for road works can therefore be represented in the equation below.

$$TC = \sum (Q \times UP) \times (1 + IWC) \times (1 + OP) \times (1 + VAT)$$

Equation 3-1

Where:

TC	=	Total Cost of the work package
Q	=	Quantity of each work item
UP	=	Unit Price of each work item
IWC	=	Indirect Work Cost (%)
OP	=	Overheads and Profit (%)
VAT	=	Value Added Tax (%)

The **Direct Work Cost** is the total cost of executing the work items and is obtained by multiplying the quantity of each work item by its corresponding unit price.

The Unit Price comprises the **Unit Work Price**, which represents the cost of undertaking the work assuming all resources are available on site, and the Unit Haulage Price, which accounts for the transportation of materials, equipment, or other inputs associated with the work item.

The **Indirect Work Cost** covers management, supervision, administration, site facilities, and other project-related support costs. It is applied as a factor or percentage of the Direct Work Cost.

Overheads and Profit account for the contractor's business overheads and expected profit margin. These are also applied as a factor or percentage to the applicable cost base.

Value Added Tax (VAT) is applied in accordance with the prevailing taxation regulations.

4 MARKET SURVEY FINDINGS

This chapter presents the findings of the market survey undertaken to establish representative unit rates for road construction and maintenance works across Kenya. The results are presented by work item and by region to reflect observed variations in material, labour, equipment and transport-related costs across different parts of the country.

For purposes of regional comparison, the survey findings have been organised into ten regions, providing a consistent basis for comparing prices and preparing region-specific cost estimates:

1. Nairobi Region (Nairobi, Thika, Kiambu);
2. Lower Eastern Region (Kitui),
3. Central Region (Nyeri),
4. North Eastern Region (Garissa, Wajir, Marsabit);
5. Upper Eastern Region (Isiolo);
6. Coast region (Mombasa; Malindi and Voi);
7. South Rift region (Narok, Nakuru);
8. North Rift Region (Eldoret, Kitale; Lodwar),
9. Nyanza Region (Kisumu, Kisii); and,
10. Western Region (Busia, Kakamega).

The chapter is organised into three main parts. Section 4.1 presents the regional unit rates for key price reference items, including materials, labour, plant and equipment. Section 4.2 presents the corresponding regional Bill of Quantities unit rates for selected roadworks activities, organised by activity group and bill number. Section 4.3 presents the results of ad hoc market surveys submitted to the Consultant for review, including specific rate build-ups and survey findings for selected materials, work items and project-specific cost components.

The rates presented in this chapter should be read together with the preceding chapter, which explains the cost configuration, pricing assumptions and methodology used to process market survey data and derive representative rates. A detailed rates build-up from first principles is submitted as Appendix 1: Rates from First Principles.

4.1 Regional Unit Rates for Price Reference Items



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Item	Description	Units	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
24-50-001	Air Compressor, 125 cfm : < 4250 LPM	Hr	2550	3,000	3,000	2805	2,833	3,060	3,672	3305	3500	3000
24-50-002	Air Compressor, 175 cfm : > 4250 LPM	Hr	4000	5,200	3,000	4400	2,833	4,800	5,760	5184	4,000	5,400
24-50-003	Armco Flex Beam Guard Rails	Lm	6500	9260	10230	8500	9531	9950	9125	10180	10110	9750
24-50-004	Artisans Grade I	Per Day	2200	1550	1533	1633	2000	1800	1800	1600	2300	1567
24-50-005	Artisans Grade II	Per Day	1700	1350	1608	1200	1500	1600	1100	1100	1817	1717
24-50-006	Artisans Grade III	Per Day	1950	1250	1600	1033	1000	1600	1100	1100	1600	1800
24-50-007	Assistant Engineer	Per Day	2800	2500	2669	2667	2800	3000	2500	2500	3000	2672
24-50-008	Axe	No.	867	898	608	663	758	850	950	850	833	733
24-50-009	Bitumen A3	Ltr	974	1235	1059	1025	1056	1169	1169	1071	1286	1169
24-50-010	Bitumen and emulsions MC -70	Ltr	357	400	377	400	503	428	428	392	471	428
24-50-011	Bitumen cutback MC-30	Ltr	187	219	205	158	188	224	224	205	246	224
24-50-012	Bitumen cutback MC-3000	Ltr	413	497	473	413	432	496	496	455	546	496
24-50-013	Bitumen H/Decanter : 2500 Lt.	Hr	1425	1500	3000	1568	2,467	1,710	2,052	1847	2500	1350
24-50-014	Bitumen H/Decanter : 6500 Lt.	Hr	1975	2100	3000	2173	2,533	2,370	2844	2560	3000	1800
24-50-015	Bitumen H/Decanter : 8000 Lt.	Hr	2500	3000	3500	2750	3,000	3,000	3600	3240	3500	2500
24-50-016	Bitumen K1-60	Ltr	600	821	510	575	807	720	720	660	792	720
24-50-017	Bitumen K1-70	Ltr	474	582	460	625	623	569	569	522	626	569
24-50-018	Bitumen K3	Ltr	800	938	880	800	820	960	960	880	1056	960
24-50-019	Bitumen Pen Grade 60/70	Ltr	190	220	201	174	183	228	228	209	250	228
24-50-020	Bitumen Sprayer H/Operated	Hr	5500	5,067	2,250	6050	6,504	6,600	7000	7128	2,000	4,560
24-50-021	Blaster or certified explosive handler)	Hr	6000	3,690	4,500	6600	5,000	7200	8000	7776	6500	3321
24-50-022	Bolt fasteners of any size	No.	256	232	240	225	200	200	200	200	242	200
24-50-023	Brake fluid	Ltr	825	787	800	800	750	720	950	875	950	603
24-50-024	Broken stone for stone pitching	Ft	1363	1717	1670	1147	1283	1000	1400	1200	1998	2078
24-50-025	Brushes paint 1"	No.	93	133	125	105	162	135	100	101	124	115
24-50-026	Brushes paint 2"	No.	138	167	210	188	180	140	185	198	176	205
24-50-027	Brushes paint 3"	No.	193	229	310	233	255	183	243	227	203	320
24-50-028	Brushes paint 4"	No.	247	296	325	275	316	250	338	306	277	325
24-50-029	Brushes paint 5"	No.	314	382	403	350	411	305	435	368	341	405
24-50-030	Brushes paint 6"	No.	367	475	520	435	476	390	560	466	469	490
24-50-031	Bucket shovel	Hr	5000	3,400	3,000	5500	3,925	6,000	6500	6480	1,800	3,060
24-50-032	Bucket shovel RB 19 or equivalent	Hr	5750	4,000	5,000	6325	5,500	6900	7200	7452	8500	3600
24-50-033	Buckets metal 20 lts	No.	941	833	800	788	825	750	850	850	800	750
24-50-034	Buckets plastic 20lts	No.	607	625	713	788	558	650	475	400	502	460



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Item	Description	Units	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
24-50-035	Caravan : 2 Wheel	Hr	1000	1159	1450	1331	1464	1331	1464	1210	1477	1611
24-50-036	Caravan : 4 Wheel	Hr	1000	1243	1450	1331	1464	1331	1464	1210	1477	1611
24-50-037	Carpenter Grade I	Per Day	1800	1500	1617	1833	1800	2200	850	850	2200	1633
24-50-038	Carpenter Grade II	Per Day	900	1000	808	1200	900	1200	1000	1000	1200	817
24-50-039	Cement (ordinary portland)	Kg	13.72	16.36	14.56	13.86	13.32	13.7	16.3	15	17.14	15.9
24-50-040	Chain link wire 4ft - roll (specify length)	No.	3237	3327	3088	4083	4296	3860	2800	2450	5333	2850
24-50-041	Chain link wire 5ft - roll	No.	3708	3687	3288	4506	5056	5150	3500	3550	3900	3345
24-50-042	Chain link wire 6ft - roll	No.	4865	5693	3785	5403	6077	5865	4200	4225	4658	4145
24-50-043	Chain link wire 8ft - roll	No.	6683	8382	5505	7588	8236	7620	4950	5680	6683	6030
24-50-044	Chainmen	Per Day	1200	825	1017	1053	1200	1160	800	850	1187	1033
24-50-045	Chip Spreader	Hr	4875	2,708	3,000	5363	7,092	5,850	6600	6318	2,000	2,438
24-50-046	Chippings- fine aggregate (building sand)	Ton	1655	2050	1725	1450	1959	2000	1500	2100	2236	1760
24-50-047	Clutch fluid	Ltr	845	1033	780	883	734	720	900	900	1017	460
24-50-048	Coarse aggregate for max size 20mm	Ton	1436	1842	1687	1537	1948	2200	2350	1700	2018	1978
24-50-049	Coarse aggregate for max size 40mm	Ton	2140	2477	2165	2150	2138	1650	2000	1400	3153	3045
24-50-050	Coarse aggregates for concrete maximum 20mm	Ton	1456	1923	1960	1750	2159	2200	1850	1700	2128	2625
24-50-051	Coarse aggregates(chippings) - 10/14mm	Ton	1377	1950	2900	2288	1918	1700	2000	2000	2339	5115
24-50-052	Coarse aggregates(chippings) - 14/20mm	Ton	1300	1917	3350	2513	2242	1300	2100	2100	2283	6105
24-50-053	Coarse aggregates(chippings) - 3/6mm	Ton	1322	2000	1483	1404	1849	1350	1800	1800	2261	1722
24-50-054	Coarse aggregates(chippings) - 6/10mm	Ton	1155	1917	2950	2213	2377	1100	1950	1950	2052	4950
24-50-055	Compressor of capacity 60m3 per min complete with all tool, hoses, steels etc	Hr	5000	5,750	4,850	5500	4,550	6000	9450	6480	5000	5175
24-50-056	Compressor rated by normal delivery of free air per min at about 7kg/cm2,complete with all tools, hoses, steel etc: a-6.0-7.4m3/min	Hr	4800	8,750	5,200	5280	4,500	5760	8910	6221	5280	7875
24-50-057	Compressor rated by normal delivery of free air per min at about 7kg/cm2,complete with all tools,hoses,steel etc: b-7.5-19.7m3/min	Hr	4800	8,250	3,750	5280	3,904	5760	10800	6221	4800	7425
24-50-058	Compressor rated by normal delivery of free air per min. at about 7kg/cm2 capable of 70m3 of air per min.	Hr	5000	10,000	4,500	5500	2,563	6000	16956	6480	1250	9000
24-50-059	Concrete mixers(wet capacity): b-151-200 litres	Hr	3500	5,700	2,000	3850	1,550	4200	1458	4536	4500	4130
24-50-060	Concrete Block - 225x100x450mm	No.	58	68	60	55	61	73	69	63	75	58
24-50-061	Concrete Block - 225x150x450mm	No.	71	66	69	68	75	58	77	75	79	68
24-50-062	Concrete Block - 225x225x450mm	No.	82	77	82	81	88	68	93	83	90	78



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Item	Description	Units	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
24-50-063	Concrete mixer (wet capacity) a) Up to 100 litres	Hr	1525	1,350	1,700	1678	1,950	1830	17712	1976	1450	1215
24-50-064	Concrete Mixer : 200 - 300 L	Hr	1000	1,200	1,350	1100	3,233	1,200	1600	1350	1,400	1,460
24-50-065	Concrete Mixer : 300 - 450 L	Hr	1225	1,350	1,580	1348	3,300	1,470	2430	1588	2,500	1,410
24-50-066	Concrete mixer 0.7m3	Hr	2625	2,250	3,000	2888	2,778	3,150	5184	3402	2,000	2,025
24-50-067	Concrete mixer 10.7m3	Hr	5000	4,800	4,500	5500	2,667	6,000	2700	6480	4,550	4,320
24-50-068	Concrete mixer 200/140	Hr	2000	2,500	2,000	2200	2,100	2400	3801.6	2592	2500	2250
24-50-069	Concrete mixer 400/280	Hr	4000	3,520	3,500	4400	4,000	4800	9072	5184	3850	3168
24-50-070	Concrete mixer of 0.2 - 0.3m3 (wet capacity)	Hr	10161	8,400	11,000	11177	1,022	12193	2322	13100	9500	7560
24-50-071	Concrete P/vibrator	Hr	4686	2,150	2,700	5155	1,127	5624	2538	6073	4,500	3,300
24-50-072	Concrete Screed Vibrator	Hr	938	1,350	1,600	1032	1,818	1126	1550	1216	1750	1450
24-50-073	Crane 30 tonne	Hr	5000	5,567	4,000	5500	3,875	6000	7830	6480	6250	5010
24-50-074	Cranes, mobile rubber tyred,rough terrain type of 23.0-40.0t max working load	Hr	7575	7,250	4,000	8333	7,200	9,090	11520	9817	8,000	6,525
24-50-075	Cranes; excavator cranes,tracked wheels-20-28t working load	Hr	7500	80,000	7,344	8250	8,640	9000	13320	9720	9083	9600
24-50-076	Cranes; excavator cranes,tracked wheels-28.1 - 36.0t working load	Hr	9000	12,333	8,208	9900	3,840	10800	9180	11664	10667	11100
24-50-077	Craw loaders: b -1.31-1.90m3 SAE rated capacity	Hr	4000	8,500	10,973	4400	3,840	4800	10260	5184	6250	7650
24-50-078	Craw loaders: c -3.41-5.35m3 SAE rated capacity	Hr	4000	9,500	9,187	4400	5,760	4800	13716	5184	6750	8550
24-50-079	Craw loaders: a - 0.8-1.3m3 SAE rated capacity	Hr	6000	12,700	8,640	6600	6,480	7200	11484	7776	9350	11430
24-50-080	Crawler dozer with hydraulic attachments - 186kw-250kw rated flywheel power	Hr	6750	10,633	8,640	7425	5,440	8100	10800	8748	8692	9570
24-50-081	Crawler dozers with dozers and hydraulic attachment (a) 100 - 135kw rated flywheeled power	Hr	5667	10,000	8,208	6233	8,960	6,800	10800	7344	7833	9,000
24-50-082	Crawler dozers with dozers and hydraulic attachment (a) 136 - 185kw rated flywheeled power	Hr	9333	10,000	7,776	10267	6,720	11200	10260	12096	9667	9000
24-50-083	Crawler loader 4WD, articulated: (a) 1.5 - 2.0m3 SAE rated bucket capacity	Hr	7000	9,500	10,800	7700	7,200	8400	9720	9072	8250	8550
24-50-084	Crawler loader 4WD, articulated: (a) 2.1 - 3.4m3 SAE rated bucket capacity	Hr	7500	9,000	5,904	8250	6,000	9000	13500	9720	8250	8100
24-50-085	Crawler dozers with hydraulic ripper attachments c) 186 - 250 kW rated flywheel power.	Hr	6250	12,500	5,616	6875	3,840	7500	7380	8100	9375	11250
24-50-086	Crawler loader -0.8-1.3m³ SAE rated capacity	Hr	4000	6,833	5,760	4400	3,504	4,800	7020	5184	5417	6,150
24-50-087	Crawler Tractor (e.g. D4/D5) : 90 - 100 HP	Hr	3650	6,500	6,653	4015	3,840	4,380	7200	4730	5075	5850



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24-50-088	Crawler Tractor (e.g. D6) : 140 - 160 HP	Hr	4000	6,667	6,682	4400	4,080	4,800	8316	5184	5333	6000
24-50-089	Crawler Tractor (e.g. D7) : 200 - 220 HP	Hr	4250	7,700	6,854	4675	4,464	5,100	8352	5508	5975	6930
24-50-090	Crawler Tractor (e.g. D8) : 250 - 325 HP	Hr	4650	7,733	7,200	5115	4,800	5,580	8568	6026	6192	6960
24-50-091	Crawler Tractor (e.g. D9) : 400 - 450 HP	Hr	5000	7,933	7,862	5500	2,784	6,000	9000	6480	6467	7140
24-50-092	Crusher run material (Graded crushed stone)	Ton	1317	1758	2045	1654	1939	1800	1500	1450	1992	2657
24-50-093	Crushing subbase material	Ton	1000	1358	1163	1213	1250	1175	1500	1450	1467	1215
24-50-094	Culvert moulds 1200 mm	No.	87650	75233	70242	71800	75104	83710	80360	77800	81657	76200
24-50-095	Culvert moulds 300 mm	No.	26696	24417	29417	24000	24180	26400	26180	23940	27352	24100
24-50-096	Culvert moulds 450 mm	No	34233	27100	34425	26950	26508	27390	29280	24990	30990	25000
24-50-097	Culvert moulds 600 mm	No.	41368	30833	40792	33375	33436	32175	37700	30975	37375	29350
24-50-098	Culvert moulds 900 mm	No.	53010	53000	55625	55000	56106	57750	61800	55650	61417	52600
24-50-099	D4 - Dozer	Hr	2900	8,333	6,192	3190	4,608	3480	9828	3758	5617	7500
24-50-100	D6 - Dozer	Hr	4800	9,100	8,928	5280	5,438	5760	7740	6221	6950	8190
24-50-101	D7 tractor or equivalent with PCU	Hr	5665	7,167	5,250	6232	7,104	6798	7500	7342	6416	6450
24-50-102	D8 - Dozer	Hr	7400	10,333	8,500	8140	3,840	8,880	2988	9590	8867	9,300
24-50-103	Dead weight Roller (6-8 tones) - Tractor towed	Hr	4000	2,767	4,320	4400	3,904	4800	3240	5100	3550	2490
24-50-104	Dense Bitumen Macadam	m ³	23857	28738	26966	25000	27210	28629	28629	26243	31491	28629
24-50-105	Diesel fuel	Ltr	201	202	200	201	199	200	204	202	208	201
24-50-106	Double drum steel Vibrator roller: 9-10T, 100HP	Hr	4067	3,000	5,472	4473	2,784	4880	5400	5270	3533	2700
24-50-107	DPC dump proof course - 100mm wide	No.	2700	3600	3510	3375	3250	3510	3510	3240	3780	3510
24-50-108	DPC dump proof course - 150mm wide	No.	2800	3733	3640	3500	3413	3640	3640	3360	3920	3640
24-50-109	DPC dump proof course - 200mm wide	No.	3000	4000	3900	3750	3620	3900	3900	3600	4200	3900
24-50-110	Dragline shovel RB 10 or equivalent	Hr	2900	5,000	3,050	3190	6,144	3480	6840	3758	3950	4500
24-50-111	Draw bar Trailer : 15 - 20 Tonnes	Hr	6400	6,333	6,048	7040	5,650	7680	5550	8294	6367	5700
24-50-112	Drawn vibrating roller	Hr	1675	2,367	9,936	1843	8,640	2010	7560	2171	2021	2130
24-50-113	Dressed natural stone pavement	Ton	1300	1850	1913	1375	2100	1000	1950	1800	2142	1595
24-50-114	Drilling holes	No.	4000	5333	5200	5000	4533	5200	5200	4800	5600	5200
24-50-115	Driver	Per Day	1200	1000	875	1200	1500	1000	1000	1000	1133	1000
24-50-116	Drums empty 210 lts	No.	1802	2317	1332	1775	2058	2200	1675	1775	2114	1800
24-50-117	Dual purpose hydraulic excavator (with a back hoe/loader) and a rated bucket capacity of up to 1m3	Hr	9000	7,000	9,360	9900	6,545	10800	12420	11664	8000	6300
24-50-118	Excavator - hydraulic crawler or wheel mounted, full circles slew(back actor): a-14.0-17.0 t nominal weight machine	Hr	6818	11,500	8,784	7500	7,370	8181.6	11700	8836	9159	10350



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24-50-119	Excavator : 140 HP	Hr	7677	10,833	5,760	8445	5,263	9,213	10980	9950	9255	9,750
24-50-120	Excavator with loader 0.5m3	Hr	5482	6,000	5,616	6030	5,770	6,579	7200	7105	7824	9,150
24-50-121	Excavators - hydraulic wheeled dual purpose(backhoe loader): b-0.8-1.0m3 rated bucket capacity	Hr	6011	6,667	6,336	6612	6,506	7,213	7020	7790	6339	6000
24-50-122	Excavators - hydraulic wheeled dual purpose(backhoe loader): a- 0.6-0.8m3 rated bucket capacity	Hr	6777	6,500	6,624	7455	9,600	8,133	7920	8783	6639	5850
24-50-123	Excavators; hydraulic crawler or wheel mounted full circle slew 14 - 17t nominal weight of the machine	Hr	10000	7,333	5,184	11000	5,745	12000	8280	12960	8667	6600
24-50-124	Excavators; hydraulic wheeled dual purpose (backhoe/loader) 0.81 - 1.0m3 rated bucket capacity	Hr	5984	7,667	4,320	6582	4,799	7,181	6480	7755	6825	6900
24-50-125	Fencing wire barbed G. 16 - roll	No.	4464	6133	5125	4619	5250	3825	4800	5665	5108	5890
24-50-126	Fine aggregates(sand)	Ton	1628	2025	1688	3100	1863	1000	1500	2100	2022	1995
24-50-127	Fine aggregates(stone dust)	Ton	1100	1792	1763	1950	1825	1600	1000	1000	1633	1890
24-50-128	Flat bed (3 tonne truck)	Hr	1875	2293	2550	2496	2745	2496	2745	2269	2769	3020
24-50-129	Foreman	Per Day	2300	2000	2169	2333	2000	2726	2000	2000	2909	2172
24-50-130	Fork jembe	No.	904	672	700	900	746	650	900	800	786	600
24-50-131	Front Wheel Loader, : 105 - 125 HP	Hr	4999	6,000	3,744	5499	3,633	5,999	5400	6479	5500	5400
24-50-132	Front Wheel Loader, < 115 HP: 90 - 105 HP	Hr	3785	5,000	2,952	4163	2,924	4,541	4680	4905	4392	4500
24-50-133	Fuel Tanker : 5000 - 6000 Lt.	Hr	1000	1430	1550	1331	1464	1331	1464	1210	1477	1611
24-50-134	Fuel Tanker : 6000 - 8000 Lt.	Hr	1250	1834	2000	1664	1830	1664	1830	1513	1846	2013
24-50-135	G. C. I sheets gauge 26 - 2.0m	No.	1192	1463	1276	1200	2017	2550	1850	1925	2517	1215
24-50-136	G. C. I sheets gauge 26 - 3.0m	No.	2199	2440	1938	1575	2189	2900	2775	2800	2825	1690
24-50-137	G. C. I sheets gauge 28 - 2.0m	No.	1867	1808	1763	1513	1519	1575	1775	1625	1758	2575
24-50-138	G. C. I sheets gauge 28 - 3.0m	No.	1774	2337	1883	1525	2219	2325	2450	2400	2533	2125
24-50-139	G. C. I sheets gauge 30 - 2.0m	No.	1391	1238	988	1110	971	1100	1050	1050	1550	790
24-50-140	G. C. I sheets gauge 30 - 3.0m	No.	1220	1548	1337	1225	1454	1600	1425	1500	1500	1110
24-50-141	G. C. I sheets gauge 32 - 2.0m	No.	1031	782	775	898	852	950	575	710	892	700
24-50-142	G. C. I sheets gauge 32 - 3.0m	No.	1004	1118	1250	1213	1119	1250	1250	1075	1167	1100
24-50-143	G. C. I. sheets gauge 26 - 2.5m	No.	1879	2200	1511	1525	2444	2400	2450	2300	2367	1445
24-50-144	G. C. I. sheets gauge 28 - 2.5m	No.	1550	2013	1775	1700	1856	1975	2100	2025	2192	2500
24-50-145	G. C. I. sheets gauge 30 - 2.5m	No.	1033	1500	1149	1195	1278	1350	1100	1275	1817	935
24-50-146	G. C. I. sheets gauge 32 - 2.5m	No.	839	1008	949	1050	980	1075	1075	888	1125	860
24-50-147	G.C.I ridge caps gauge 26	Lm	786	1000	800	605	758	525	575	375	685	475



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24-50-148	G.C.I ridge caps gauge 28	Lm	708	948	965	888	667	1000	375	790	892	860
24-50-149	G.C.I ridge caps gauge 30	Lm	708	1240	584	1475	459	550	283	700	458	579
24-50-150	Gabion box	Sm	1897	4217	2979	3313	4867	3250	4050	3975	4367	2650
24-50-151	Gabion Matress	Sm	2669	4083	3292	3375	4022	3400	4850	3100	4683	3250
24-50-152	Gabion Mesh	Sm	1875	4000	3150	3775	4867	3750	4275	3100	4658	2900
24-50-153	Garden rake	No.	727	558	608	500	538	600	575	550	664	567
24-50-154	Generator Stat : 20 Kva	Hr	3045	4,333	3,053	3350	1,944	3,654	3690	3947	3689	3900
24-50-155	Generator Stat : 200 Kva	Hr	2550	3,533	3,250	2805	3,050	3,060	3700	3305	3042	3180
24-50-156	Generator Stat : 45 Kva	Hr	2025	3,417	2,800	2228	2,448	2,430	3816	2624	2721	3075
24-50-157	Graded aggregates (ballast)	Ton	1615	1917	1485	1668	1710	1475	1500	1500	2375	1727
24-50-158	Grader - Tractor towed	Hr	4850	6,233	4,320	5335	944	5820	270	6286	5542	5610
24-50-159	Grass Cutter	Hr	983	250	1030	1082	3,168	1,180	5400	1274	617	225
24-50-160	Gravel material (murrum)	Ton	1335	1667	1329	1277	1612	750	1200	1300	1601	1328
24-50-161	Guard rail bolts and nuts	No.	250	387	440	325	390	275	388	430	368	450
24-50-162	Guardrail post - Plastics	No.	2,800	3,000	3,100	3,200	3,400	2,900	3,500	2,900	4,200	3,200
24-50-163	Guardrail post (concrete)	No.	4,500	4,800	5,000	5,100	5,400	4,700	5,600	4,600	6,500	5,100
24-50-164	Guardrail post (steel)	No.	3,850	4,100	4,250	4,350	4,600	4,000	4,900	3,950	5,800	4,400
24-50-165	Guardrail post (wooden)	No.	3,200	3,400	3,500	3,600	3,800	3,300	4,000	3,250	4,500	3,600
24-50-166	Hand saw 20	No.	319	375	383	300	447	400	325	350	467	300
24-50-167	Hand saw 24	No.	334	533	418	413	550	385	350	475	600	340
24-50-168	Hard board 8_ x 4_ x 1	No	4940	6050	6250	5750	5967	6750	5875	5500	7183	6700
24-50-169	Hard board 8_ x 4_ x 1/2	No	2750	3800	3688	3213	3911	3825	3600	3875	4265	3775
24-50-170	Hard brooms	No.	290	375	413	320	414	400	250	325	442	367
24-50-171	Hardcore	Ton	1150	1828	1938	1573	1800	1000	1000	1200	1633	2464
24-50-172	High Yield Steel (any diametre)	12-meter length	10083	6233	8447	6600	7501	12500	9350	8600	6530	13150
24-50-173	High yield steel (any diameter from 5 - 25 mm)	12-meter length	9107	9420	8038	9375	8214	8700	8875	8950	5136	8400
24-50-174	High yield steel <12mm dia	12-meter length	1617	1653	2975	1571	1539	1670	1775	1625	2245	1670
24-50-175	High yield steel >12mm dia	12-meter length	2748	2725	5745	2488	2484	2800	2575	2375	5592	2825
24-50-176	High yield steel over 16mm diameter size	12-meter length	4420	3933	5875	5275	5142	4500	5975	5600	4817	5250
24-50-177	High yield steel upto and including 16mm diameter	12-meter length	1633	2431	4185	1596	1815	1634	1775	1675	3414	1674
24-50-178	Hose pipe rubber 0.5 (specifiy length)	No.	1948	1800	1272	1613	1925	1675	2500	1300	1867	1200
24-50-179	Hose pipe rubber 1	No.	4978	3383	1667	3025	3708	4325	5000	2350	3739	2200
24-50-180	Hose pipe rubber 3/4	No.	3131	2250	1338	2425	2474	2475	4400	1625	3017	1600
24-50-181	Hydrated lime	Per 25 kg bag	772	800	817	813	624	905	850	700	862	825



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24-50-182	Hydraulic oil	Ltr	523	700	588	550	621	550	700	625	783	600
24-50-183	Hydraulic Ripper	Hr	3300	5,000	1,555	3630	6,544	3960	5040	4277	4150	4500
24-50-184	Invert block drain (Deep) (620mm x 450mm x 250mm)	No.	432	708	726	575	628	675	825	599	679	575
24-50-185	Invert block drain (Shallow) (600mm x 480mm x 125mm)	No.	347	558	631	475	435	500	550	420	599	550
24-50-186	Jembe	No.	609	550	690	520	569	450	600	675	778	543
24-50-187	Jembe handle	No.	208	158	445	408	167	400	100	150	217	150
24-50-188	Kerosene	Ltr	201	203	202	200	200	204	206	199	206	205
24-50-189	Large bus : 55 - 62 passengers	Hr	4375	5275	5200	5823	6405	5823	6405	5294	6462	7046
24-50-190	Loader + Backhoe : 140 HP	Hr	6817	4,667	2,592	7499	1,152	8,180	1944	3835	5742	4,200
24-50-191	Loader front wheeled or equivalent 955v	Hr	6000	4,033	7,000	6600	6000	7200	8640	7776	7000	5500
24-50-192	Lorries - ordinary: 7.6 -12.0t gross vehicle weight	Hr	1500	2093	8598	1997	2196	1997	2196	1815	2216	2416
24-50-193	Lorry (3 tonne)	Hr	1063	1474	1650	1414	1556	1414	1556	1286	1569	1711
24-50-194	Lorry (5 tonne)	Hr	1313	1774	1750	1747	1922	1747	1922	1588	1939	2114
24-50-195	Lorry 7 tonnes	Hr	1500	2093	2550	1997	2196	1997	2196	1815	2216	2416
24-50-196	Lubricating Oil	Ltr	561	763	608	595	618	650	725	575	835	583
24-50-197	Mallet - 1 kg	No.	994	733	1047	873	790	875	750	600	642	450
24-50-198	Mallet - 2 kg	No.	1230	1000	1347	925	1515	800	1100	1325	1283	800
24-50-199	Mallet - 5 kg	No.	2165	1300	2583	1775	1881	1200	2900	2700	1925	1100
24-50-200	Mason Grade I	Per Day	1800	1500	1617	1567	1800	2320	1200	1200	2240	1633
24-50-201	Mason Grade II	Per Day	1400	1200	1217	1067	1400	1160	1000	1000	1187	1233
24-50-202	Mechanical bitumen hand spray unit	Hr	1200	1,800	3,348	1320	2,496	1,440	3240	1555	1500	1620
24-50-203	Mechanical broom	Hr	2600	3,000	3,456	2860	3,840	3,120	4185	3370	2800	2700
24-50-204	Mesh wire 8_ x 4_ gauge 18	No.	837	1108	1350	1288	1409	1625	575	1500	1508	1500
24-50-205	Mesh wire 8_ x 4_ gauge 24	No.	3575	4445	4913	5438	4217	2675	4150	3225	4175	3925
24-50-206	Microbus : 14 - 18 passengers	Hr	1875	2564	2870	2496	2745	2496	2745	2269	2769	3020
24-50-207	Microbus : 25 - 30 passengers	Hr	2500	3419	3830	3328	3660	3328	3660	3025	3693	4026
24-50-208	Mild steel upto and including 16mm diameter	Tonne	9417	12683	12070	9975	11878	12645	12645	10450	13909	11495
24-50-209	Mild steel (any diameter from 5.25mm)	Tonne	13200	18023	17152	14175	16880	17969	17969	14850	19765	16335
24-50-210	Mild steel over 16mm diameter size	Tonne	10550	14018	13340	11025	13129	13976	13976	11550	15373	12705
24-50-211	Mobile Crane 5 tonne lifting capacity	Hr	4000	3,875	4,032	4400	14,400	4,800	4320	5184	3938	3,488
24-50-212	Mobile Workshop : 8 Tonnes	Hr	15000	4,000	3,686	16500	6,791	18000	5040	19440	9500	3600
24-50-213	Mops	No.	331	300	313	310	337	375	230	275	341	250
24-50-214	Mortise lock 2 lever	No.	1844	1692	1417	1238	1685	1200	1450	1750	1633	1517
24-50-215	Mortise lock 3 lever	No.	2704	2692	2109	2225	2646	1750	2250	2575	2183	2067



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24-50-216	Motor grader with 121kw-160kw rated flywheel power	Hr	7074	4,667	4,032	7781	6,695	8488.8	4608	9168	5870	4200
24-50-217	Motor grader Cat D 12 or equivalent withn scarifier	Hr	5000	4,667	4,320	5500	6,695	6000	5328	6480	4833	4200
24-50-218	Motor gradercomplete with scarifier: a-80-110kw rated flywheel power	Hr	6974	4,933	3,398	7671	7,271	8368.8	5400	9038	5954	4440
24-50-219	Motor gradercomplete with scarifier: c-121-160kw rated flywheel power	Hr	7574	5,000	3,600	8331	3,936	9088.8	4248	9816	6287	4500
24-50-220	Motor Grader (e.g. CAT 112F): 100 - 130 HP	Hr	4100	3,933	3,888	4510	5,676	4,920	4500	5314	4017	3,540
24-50-221	Motor Grader (e.g. CAT 120H): 131 - 155 HP	Hr	5912	4,167	4,176	6503	6,434	7,094	4860	7662	5039	3750
24-50-222	Motor Grader (e.g. CAT 140H): 156 - 200 HP	Hr	6702	4,500	4,464	7372	6,767	8,042	5220	8686	5601	4050
24-50-223	Motor Grader CAT 120 or Equivalent	Hr	7049	4,833	3,744	7754	7,031	8459.2	5580	9136	5941	4350
24-50-224	Motor grader complete with scarifier: b-111 - 120 kw rated flywheel power	Hr	7324	5,167	4,032	8056	4,800	8788.8	4680	9492	6245	4650
24-50-225	Motor Graders (a) 80 - 110kw rated flywheeled power	Hr	5000	4,333	5,550	5500	5,760	6000	5040	6480	4667	3900
24-50-226	Motor Graders (b) 111 - 150kw rated flywheeled power	Hr	6974	4,267	4,262	7671	4,800	8368.8	5040	9038	5620	3840
24-50-227	Motor graders 80-100kw rated flywheel power: b-100-135kw rated flywheel power	Hr	6000	4,667	4,320	6600	4,800	7200	11880	7776	5333	4200
24-50-228	Natural stones 4 x 9 - dressed	Lm	25	61	56	51	25	80	70	58	55	53
24-50-229	Natural stones 6 x 9 - dressed	Lm	29	76	70	68	41	60	60	64	69	70
24-50-230	Natural stones 9 x 9 - dressed	Lm	32	89	79	79	52	80	80	78	81	75
24-50-231	Office Attendants	Per Day	1300	1500	1208	1233	1300	1160	1200	1200	1187	1217
24-50-232	Oil paint for metallic surfaces	Litre	945	1091	853	831	962	1120	1150	1275	1172	775
24-50-233	Ordinary flat bed lorry, 8-15 ton gross vehicle wt	Hr	5000	11,000	2,592	5500	6,000	6,000	5400	6480	8000	9900
24-50-234	Panga	No.	426	442	550	488	472	450	300	525	625	500
24-50-235	Paver	Hr	6250	5,000	3,204	6875	996	7500	3240	8100	5625	4500
24-50-236	Pedestrian Roller : 700 - 1000 Kg.	Hr	1038	3,000	2,650	1141	3,128	1,245	4005	1345	2000	2,700
24-50-237	Penetration grade Bitumen 80/100 penetration grade	Ltr	178	207	194	164	184	213	213	196	235	213
24-50-238	Permanent road signs - Fibre Reinforced	No.	10000	12499	11528	9940	10515	12100	12800	7308	11336	10480
24-50-239	Permanent road signs - Plastics	No.	6500	8915	9790	7788	8787	7920	9750	8906	8392	9400
24-50-240	Permanent road signs - Steel	No.	8500	8460	9419	8156	8525	8800	11500	11830	10627	8750
24-50-241	Petrol Super/Regular	Ltr	211	213	211	211	209	211	215	213	218	211
24-50-242	Pick	No.	1489	1050	1185	875	689	1000	1000	1075	1158	1150
24-50-243	Pick Up (0.75 to 1) tonne capacity	Hr	1875	1,667	1,375	2063	1,750	2250	2,700	2430	1450	1500
24-50-244	Pick Up, 4x2 : 1 - 1.5 Tonnes	Hr	1688	2099	2485	2246	2471	2246	2471	2042	2492	2718



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24-50-245	Pick Up, 4x4 : 1 - 1.5 Tonnes	Hr	1688	2204	2485	2246	2471	2246	2471	2042	2492	2718
24-50-246	Plain sheets gauge 28	No.	1291	1292	1327	1350	1166	1050	1475	1425	1492	1250
24-50-247	Plain sheets gauge 30	No.	1049	1100	832	650	712	550	625	453	717	745
24-50-248	Plywood 8_ x 4_ x 1/2	No	2157	2297	2750	1863	2525	2195	2650	3550	2785	2050
24-50-249	Plywood 8_ x 4_ x 1/4	No	850	1280	1188	1313	1253	1063	1350	1025	1455	1400
24-50-250	Pneumatic Roller: 10T, 130 HP	Hr	3259	3,708	3,250	3585	2,160	3,911	2160	4223	3484	3,338
24-50-251	Poker vibrator for concrete diesel	Hr	2250	2,000	3,456	2475	60	2,700	1620	2900	2125	1800
24-50-252	Polymer modified 80/100	Ton	36667	43383	40500	36250	39667	44000	44000	40333	48400	44000
24-50-253	Polymer modified Cationic fog sprays	Ton	37500	44750	41325	34250	39000	45000	45000	41250	49500	45000
24-50-254	Power saw	Hr	63	70	60	69	65	75.6	80	82	100	65
24-50-255	Precast Concrete paving block (CPB) 50mm thick	Sm	1220	1192	996	950	1144	1000	1400	1050	1195	1050
24-50-256	Precast Concrete paving block (CPB) 60mm thick	Sm	1411	1267	1225	1375	1282	1350	1550	1200	1355	1150
24-50-257	Precast Concrete paving block (CPB) 80mm thick	Sm	1841	1545	1437	1600	1614	1441	1970	1491	1768	1485
24-50-258	Precast Concrete paving slabs	No.	263	375	379	338	357	375	345	315	398	460
24-50-259	Precast Culvert - 1200mm	Piece	8563	11417	10573	11250	9825	9500	12700	13650	13250	9900
24-50-260	Precast Culvert - 300mm	Piece	2780	2958	2288	1950	2513	1200	2930	1890	2814	2850
24-50-261	Precast Culvert - 600mm	Piece	4545	4917	4206	2950	4692	2250	4700	2835	4458	4850
24-50-262	Precast Culvert - 900mm	Piece	4413	8500	6540	4950	7503	4250	7900	5040	8408	8800
24-50-263	Premix - AC Type I (cold)	m ³	43071	53513	54843	45250	49229	51686	51686	47379	56854	51686
24-50-264	Premix - AC Type I (hot)	m ³	23500	28460	29227	23500	24733	28200	28200	25850	31020	28200
24-50-265	Premix - AC Type II (cold)	m ³	54000	59270	49129	55250	57600	64800	64800	59400	71280	64800
24-50-266	Premix - AC Type II (hot)	m ³	59000	72893	74400	62000	65267	70800	70800	64900	77880	70800
24-50-267	Pressure bitumen distributor 3000 litres capacity	Hr	4000	4,000	4,032	4400	4,320	4800	5220	5184	4000	3600
24-50-268	Pressure bitumen distributor, 4000 - 9000 lts capacity	Hr	4500	4,833	6,912	4950	4,800	5400	5040	5832	4667	4350
24-50-269	Pressure bitumen distributor: a -3500-4500 litre capacity	Hr	5000	4,667	6,850	5500	11,520	6000	8640	6480	4833	4200
24-50-270	Prime Mover (no attachment): 25 - 35 Tonnes	Hr	12000	8,000	12,320	13200	14,400	14,400	9720	15552	10000	7200
24-50-271	Prime Mover (no attachment): 35 - 50 Tonnes	Hr	15000	9,000	11,200	16500	17,600	18,000	5400	19440	12000	8100
24-50-272	Provide reflectorized white paint and mark 0.2m wide marking for busbays	Litre	945	1420	1430	1250	1387	1100	1350	1275	1158	1425
24-50-273	Provide reflectorized white paint and mark 0.4m wide marking for give way lines	Litre	954	1330	1380	1225	1433	1070	1275	1250	1130	1275
24-50-274	Provide and place new pre-cast guardrail posts including drilling for connecting	No.	2000	3217	2567	2750	2814	3000	3070	2625	3028	2775
24-50-275	Pulvumixer	Hr	6500	5,000	4,500	6600	3,840	7200	5000	4500	5800	4500



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24-50-276	Pump (inclusive of all houses) and 50mm delivery	Per Day	4000	375	432	4400	4,800	4800	610	5184	2188	337.5
24-50-277	Pump Water/Mud: 100 mm.	Per Day	5000	1560	1600	5500	2,880	6,000	540	6480	2781	506
24-50-278	Pump Water/Mud: 25 mm.	Per Day	3000	2500	2750	3300	2,400	3,600	3550	3888	3750	2450
24-50-279	Pump Water/Mud: 50 mm.	Per Day	2500	725	540	2750	1,920	3,000	877.5	3240	1613	1500
24-50-280	Pumps (inclusive of all hoses) 76 - 101mm delivery	Per Day	2000	813	1000	2200	1,920	2400	675	2592	1406	731.25
24-50-281	Pumps(inclusive of all hoses): a-50-76mm delivery	Per Day	2000	625	850	2200	1,920	2400	641.25	2592	1313	562.5
24-50-282	Pumps(inclusive of all hoses): b-77-101mm delivery	Per Day	2000	594	2160	2200	7,680	2400	4860	2592	1297	534.375
24-50-283	Quarry waste material	Ton	1088	1458	1788	1588	1696	1150	1500	1450	1817	2200
24-50-284	Recovery (Truck) : 6 - 10 Tonnes	Hr	2000	2360	2350	2662	2928	2662	2928	2420	2954	3221
24-50-285	Recovery (Utility) : 2500 - 4000 c.c.	Hr	2250	2702	2850	2995	3294	2995	3294	2723	3323	3624
24-50-286	Red oxide undercoat paint for metallic surface	Litre	976	1153	1320	1088	1001	1010	975	1158	1059	1200
24-50-287	Reflective _cat_ eyes	No.	1044	1533	1350	1213	1327	1425	1338	1300	1517	1400
24-50-288	Reflective mark posts	No.	2681	3845	3629	3188	3312	3730	4013	4000	4135	1650
24-50-289	Reinforcecing steel mesh in any size	Tonne	28300	40051	38115	31500	37510	39930	39930	33000	43923	36300
24-50-290	Ribbed bars 10mm	12 meter length	996	1261	973	910	1116	980	1115	1200	967	900
24-50-291	Ribbed bars 12mm	12 meter length	1412	2088	1388	1326	1591	1380	1475	1950	1358	1280
24-50-292	Ribbed bars 16mm	12 meter length	2486	2616	2250	2418	2777	2475	2685	3225	2467	2284
24-50-293	Ribbed bars 20mm	12 meter length	4281	4852	3730	4611	4372	5435	4625	5350	5158	3900
24-50-294	Ribbed bars 25mm	12 meter length	6471	7137	5413	6861	6956	6250	6950	9500	7250	6250
24-50-295	Ribbed bars 32mm	12 meter length	11488	11670	8638	11025	12967	11250	11000	8000	12600	12550
24-50-296	Ribbed bars 40mm	12 meter length	15600	17593	12050	14950	14422	14500	13500	13250	13850	14750
24-50-297	Ribbed bars 8mm	12 meter length	647	928	605	601	754	625	710	810	677	549
24-50-298	Road Broom	Hr	8000	4,500	2,592	8800	7,560	9,600	2700	8000	6250	4050
24-50-299	Road channel (900mm x 125mm x 100mm)	No.	254	312	353	288	312	210	315	290	351	275
24-50-300	Road Kerb (900mm x 150mm x 255mm)	No.	567	492	458	500	467	500	515	550	627	570
24-50-301	Road Kerb (with channel) (625mm x 240mm x 255mm)	No.	410	642	471	550	522	600	695	625	827	475
24-50-302	Road marking glass Beads - 3FH (Hydrofugated)	Kg	870	925	888	850	847	870	950	875	872	825
24-50-303	Road Marking Machine	Hr	1600	2,500	1,450	1760	1,800	1,920	1750	2070	1750	2,250
24-50-304	Road marking paint - White	Litre	985	1117	1005	938	1195	1115	1175	1266	1202	1000
24-50-305	Road marking paint -Yellow	Litre	1045	1255	1238	1075	1243	1200	1200	1338	1346	1125
24-50-306	Road safety barriers 2m	No.	13410	16425	16025	14500	14883	15250	16425	14800	16850	15000
24-50-307	Road safety cones 1m 0.5m	No.	1550	1742	1625	1713	1673	1550	1650	1650	1867	1725
24-50-308	Road Stud	Sm	680	855	825	763	788	790	775	700	788	800
24-50-309	Rock fill to Gabions	Ton	1195	1700	1711	1406	1898	1000	1000	1200	1450	1894



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24-50-310	Rockfill (Boulders)	Ton	1300	1700	1599	1475	1358	1000	1000	1100	1750	1868
24-50-311	Roller : 3 - 4 Tonnes	Hr	5000	3,000	2,160	5500	4,560	6,000	4320	6480	4000	2700
24-50-312	Roller 10-12 tonne (smooth wheel)	Hr	4655	2,500	1,200	5121	3,300	5586	6,700	6033	2150	2250
24-50-313	Roller 15 tonne pneumatic (self propelled)	Hr	6000	7,833	5,250	6600	6000	7,200	8,640	7776	7000	7050
24-50-314	Roller 16-18 tonne (smooth wheel)	Hr	5975	7,867	6,000	6573	5975	7170	8,604	7744	6573	7080
24-50-315	Roller: pneumatic tyred, self propelled of 1-2 tonne per wheel	Hr	4750	4,000	2,376	5225	2,400	5,700	2700	6156	4375	3600
24-50-316	Rollers - Vibratory single roll rubber tyred (steel three wheel): a-8.3-10.5 T Unballasted weight	Hr	3625	2,750	2,390	3988	3,240	4350	2610	4698	3188	2475
24-50-317	Rollers - road deadweight steel three wheel a) 6.1 t-8.5 t unballasted weight	Hr	3375	2,417	2,462	3713	3,680	4050	2988	4374	2896	2175
24-50-318	Rollers - road deadweight steel three wheel b) 8.6 - 10.5 t unballasted weight.	Hr	1780	2,767	2,030	1950	1,440	1710	3078	2950	3580	2490
24-50-319	Rollers - Road deadweight(steel three wheel): b-1.1-2.0T unballasted weight	Hr	1500	2,850	2,160	1650	2,160	1800	2538	1944	2175	2565
24-50-320	Rollers - towed vibratory including tractor b) 6.5 - 8.8 t un-ballasted weight.	Hr	2250	2,350	2,030	2475	4,800	2700	2700	2916	2300	2115
24-50-321	Rollers - Towed vibratory including tractor: a- 6.5-8.5T unballasted weight	Hr	5000	2,500	3,024	5500	4,800	6000	2538	6480	3750	2250
24-50-322	Rollers - Towed vibratory including tractor: b- 8.9-11.7T unballasted weight	Hr	5000	2,350	2,448	5500	1,440	6000	3780	6480	3675	2115
24-50-323	Rollers - Vibratory pedestrian operated twin roller: a- 651kg - 1.3 t unballasted weight	Hr	1500	3,500	2,448	1650	2,400	1800	3060	1944	2500	3150
24-50-324	Rollers deadweight (3-wheel include Tractor)-6.5t-8.8t unballasted weight	Hr	2500	2,500	2,088	2750	3,480	3000	2970	3240	2500	2250
24-50-325	Rollers deadweight (3-wheel include Tractor) - 8.9t-10.5t unballasted weight	Hr	2500	2,833	2,318	2750	4,080	3000	3060	3240	2667	2550
24-50-326	Rollers,vibratory single drum ,rubber tyred,self-propelled 8.3t - 10.5t unballasted weight	Hr	4250	2,833	2,938	4675	3,960	5,100	2898	5508	3542	2550
24-50-327	Rollers-vibratory single Roll rubber tyred a) 8.3t-10.5t unballasted weight.	Hr	4125	2,683	3,067	4538	2,880	4,950	3672	5346	3404	2415
24-50-328	Round Bars 10mm	12 meter length	964	1226	1054	963	964	930	1150	1225	1310	900
24-50-329	Round Bars 12mm	12 meter length	1488	1435	1503	1373	1305	1350	1600	1575	1600	1350
24-50-330	Round bars 16mm	12 meter length	2579	2991	2688	2566	2652	2650	2900	3000	2848	2560
24-50-331	Round bars 20mm	12 meter length	2853	3898	3783	2700	3118	3775	2775	2775	2908	2650



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24-50-332	Round bars 25mm	12 meter length	4204	5402	4400	3580	3592	3600	3975	3975	4300	3010
24-50-333	Round bars 32mm	12 meter length	6567	5102	4900	4508	4744	5750	6200	6200	6508	3615
24-50-334	Round bars 40mm	12 meter length	4164	4396	5150	3963	4275	3950	3925	3925	3750	4000
24-50-335	Round Bars 6mm	12 meter length	230	353	413	375	278	250	325	325	380	275
24-50-336	Round Bars 8mm	12 meter length	709	725	725	671	686	700	770	770	835	650
24-50-337	Saloon (luxurious) : 2000 c.c	Hr	563	957	912	749	824	749	824	681	831	906
24-50-338	Saloon (luxurious): 2400 c.c	Hr	563	957	920	749	824	749	824	681	831	906
24-50-339	Saloon : > 2400 c.c	Hr	438	827	2070	582	641	582	641	529	646	705
24-50-340	Saloon : 1400 c.c	Hr	438	702	650	582	641	582	641	529	646	705
24-50-341	Saloon : 1600 c.c	Hr	438	702	650	582	641	582	641	529	646	705
24-50-342	Saloon : 1800 c.c	Hr	438	786	650	582	641	582	641	529	646	705
24-50-343	Saloon : 2000 c.c	Hr	438	723	650	582	641	582	641	529	646	705
24-50-344	Saloon : 2400 c.c	Hr	438	734	720	582	641	582	641	529	646	705
24-50-345	Scotchlite:Reflective adhesive material - Yellow	Roll	3433	2642	3157	2573	2772	1330	2850	2418	1693	2870
24-50-346	Scotchlite:Reflective adhesive material - White	Roll	2929	2702	2585	2738	2320	2600	3975	3450	2883	2350
24-50-347	Scraper	Hr	3000	3,400	3,434	3300	3,840	3600	3834	3888	3200	3060
24-50-348	Scraper (self-propelled or equivalent)	Hr	3750	6,500	4,000	4125	3750	4500	5400	4860	4125	5850
24-50-349	Scraper attachment 5.4m3 capacity	Hr	4000	3,550	3,672	4400	8,640	4800	4293	5184	3775	3195
24-50-350	Self propelled chip spreader or equivalent approved	Hr	9000	3,975	3,240	9900	4,320	10800	4590	11664	6488	3577.5
24-50-351	Self propelled vibratory roller of 650-1000kg unballasted weight	Hr	4500	4,250	3,240	4950	4,320	5400	4050	5832	4375	3825
24-50-352	Self-loading wheeled motor scraper of: (a) up to 15m3 buck capacity	Hr	4500	3,750	3,672	4950	4,320	5400	4050	5832	4125	3375
24-50-353	Self-loading wheeled motor scraper of: (a) up to 25m3 buck capacity	Hr	4500	3,750	3,456	4950	3,840	5400	4590	5832	4125	3375
24-50-354	Self-loading wheeled motor scraper of: a-upto 16m3 heaped capacity	Hr	4000	4,250	2,592	4400	3,840	4800	4320	5184	4125	3825
24-50-355	Self-loading wheeled motor scraper of: b-17- 26m3 heaped capacity	Hr	4000	4,000	3,888	4400	2,880	4800	3240	5184	4000	3600
24-50-356	Semi Trailer, Dumper: 35 - 50 Tonnes	Hr	4375	4775	5200	5823	6405	5823	6405	5294	6462	7046
24-50-357	Semi Trailer, F/Bed : 40 ft.	Hr	3125	4346	4550	4159	4575	4159	4575	3781	4616	5033
24-50-358	Semi Trailer, Fuel : 35 - 50 Tonnes	Hr	3125	5732	4500	4159	4575	4159	4575	3781	4616	5033
24-50-359	Semi Trailer, Water: 35 - 50 Tonnes	Hr	3750	5962	5400	4991	5490	4991	5490	4538	5539	6039
24-50-360	Sheeps foot roller of heavy grid roller self propelled	Hr	3000	3,000	2,160	3300	4,324	3600	4860	3888	3000	2700



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24-50-361	Shovel	No.	535	605	813	733	615	550	675	750	744	633
24-50-362	Shovel Komatsu W90 or equivalent	Hr	4504	4,500	324	4954	4,227	5404.8	2700	5837	4502	4050
24-50-363	Shuttering Timber Class F1 finish	Sm	529	753	600	680	474	770	750	575	808	600
24-50-364	Shuttering Timber Class F2 finish	Sm	542	890	750	770	727	438	485	550	867	740
24-50-365	Shuttering timber class F3 Finish	Sm	664	863	850	770	854	533	800	825	870	825
24-50-366	Side slabs(standard) 600mm x 225mm x 80mm)	No.	226	287	266	253	245	175	255	263	302	263
24-50-367	Single drum steel Vibrator roller: 9-10T, 130HP	Hr	4403	2,500	3,500	4844	2,880	5,284	405	5707	3452	2,250
24-50-368	Sisal Twine	Kg	360	510	458	425	432	400	475	300	467	325
24-50-369	Site Surveyor	Per Day	2800	2500	2517	2767	2800	3000	2500	2350	2912	2533
24-50-370	Skilled Labour : Inspector	Per Day	2800	2500	2267	2233	2800	2500	1900	1900	2579	2533
24-50-371	Skilled Labour : Overseer	Per Day	2500	2000	2458	2067	3000	2500	1900	1900	2579	2717
24-50-372	Skilled Labour: Operator	Per Day	2100	1800	1983	1933	3000	2800	1500	1500	2440	1967
24-50-373	Slashers	No.	400	550	410	488	378	275	725	360	517	475
24-50-374	Sludge pump(hand operated)	Hr	3000	375	324	3300	1,440	3600	972	3888	1688	337.5
24-50-375	Small dumpers, 750 - 1000kg rated payload	Hr	1500	900	14688	1650	1,320	1800	405	1944	1200	810
24-50-376	Small hand propelled vibrating roller	Hr	1375	375	3672	1513	19,200	1650	18360	1782	875	337.5
24-50-377	Soft brooms	No.	270	388	550	263	404	325	250	250	369	350
24-50-378	Station Wagon 4X4 Utility (Average loaded):2000-3000c.c	Hr	813	1382	1845	1081	1190	1081	1190	983	1200	1309
24-50-379	Station Wagon 4X4 Utility (loaded): 1800 - 2000 c.c	Hr	750	1296	1540	998	1098	998	1098	908	1108	1208
24-50-380	Station Wagon 4X4 Utility (Super loaded):2000-3000 c.c	Hr	813	1465	1845	1081	1190	1081	1190	983	1200	1309
24-50-381	Stone Chippings Size 10/14 nominal size for bituminous surface dressing	Ton	1490	1942	1700	1531	2275	1200	1700	1200	2378	1788
24-50-382	Stone Chippings Size 3/6 nominal size bituminous surface dressing	Ton	1415	1790	1550	1488	1758	400	1825	1600	2158	1595
24-50-383	Stone dust	Ton	1262	1642	1322	1255	1458	1200	1500	1000	1806	1396
24-50-384	Store keeper	Per Day	1800	1500	1617	1367	1000	1160	1300	1300	1453	1633
24-50-385	Support Staff	Per Day	1200	1000	1025	1133	1000	1160	1000	1000	1453	1050
24-50-386	T/Exhauster : 5000 - 6000 Lt.	Hr	20000	17,000	18,000	22000	13,600	24000	14950	25920	18500	15300
24-50-387	Tail gate chipping distributor for item 22.33,22.34,22.35 and 22.36	Hr	3750	4,250	2,419	4125	2,880	4500	3240	4860	4000	3825
24-50-388	Thermoplastic paint - BS 3262 (White)	Litre	518	534	558	575	518	425	600	580	565	525
24-50-389	Thermoplastic paint - BS 3262 (Yellow)	Litre	622	568	528	525	557	470	675	625	580	525
24-50-390	Timber (unwrot/ unplanned)	Cm	480	638	675	750	695	600	615	675	823	650



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Item	Description	Units	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
24-50-391	Timber (wrot/ planed)	Sm	671	603	650	693	841	433	725	640	940	735
24-50-392	Timber 4x2	Ft	53	50	59	57	57	51	49	51	57	59
24-50-393	Timber 6x1	Ft	50	39	42	45	51	38	46	28	52	45
24-50-394	Timber 6x2	Ft	134	77	94	88	86	78	79	82	98	90
24-50-395	Timbering for trenches	Cm	442	622	530	555	514	566	675	525	750	590
24-50-396	Towed Roller, sheepfoot: 4 Tonnes	Hr	3000	3,000	2,592	3300	2,688	3600	3024	3888	3000	2700
24-50-397	Towed Roller, steel wheel : 4 Tonnes	Hr	2800	2,800	2,650	3080	3,600	3360	3240	3629	2800	2520
24-50-398	Tractor (Agricultural)	Hr	2500	5,250	2,250	2750	2,396	3,000	3600	3240	3000	4725
24-50-399	Tractor + Trailer (m ³)	Hr	3750	3,000	1,728	4125	960	4500	810	4860	3375	2700
24-50-400	Tractor implements (e.g. Plough)	Hr	1000	750	800	1100	1,920	1200	2160	1296	875	950
24-50-401	Tractor-Agitated (no implement): 4x2, 40HP	Hr	6250	5,667	7,500	6875	6250	7500	9000	8100	6000	5100
24-50-402	Tractors - Rubber tyred including trailer: a- 50- 76kw rated fly wheel power	Hr	2000	2,000	432	2200	1,728	2400	648	2592	2000	1800
24-50-403	Trailer, Lowbed : 20 - 35 tonnes	Hr	2500	4856	3500	3328	3660	3328	3660	3025	3693	4026
24-50-404	Trailer, Lowbed : 35 - 50 tonnes	Hr	3125	5919	4550	4159	4575	4159	4575	3781	4616	5033
24-50-405	Trailer, Non-tipping : 3 - 4 Tonnes	Hr	1250	1668	1650	1664	1830	1664	1830	1513	1846	2013
24-50-406	Trailer, Tipping : 3 - 4 Tonnes	Hr	1500	1989	2000	1997	2196	1997	2196	1815	2216	2416
24-50-407	Trailer, Water/Fuel: 2000 - 2500 Lt.	Hr	1000	1451	1730	1331	1464	1331	1464	1210	1477	1611
24-50-408	Trailer, Water/Fuel: 3000 - 4500 Lt.	Hr	1250	1480	2370	1664	1830	1664	1830	1513	1846	2013
24-50-409	Trailer, Water/Fuel: 5000 - 6500 Lt.	Hr	1875	2460	3000	2496	2745	2496	2745	2269	2769	3020
24-50-410	Traxcavator 0.6 m3 with loader attachments	Hr	5000	7,667	4,500	5,500	5,392	6000	7,200	6480	7000	6900
24-50-411	Traxcavator 1.1 m3 with loader attachments	Hr	4763	7,667	4,850	5239	4,200	5715	6850	6172	5000	6900
24-50-412	Traxcavator 1.3m3 with loader attachments	Hr	5225	7,500	8,000	5748	5,500	6270	7500	6772	5600	6750
24-50-413	Truck Flat bed : 15 Tonnes	Hr	1875	2668	2800	2496	2745	2496	2745	2269	2769	3020
24-50-414	Truck Flat bed : 2.5 - 5 Tonnes	Hr	1250	1647	1550	1664	1830	1664	1830	1513	1846	2013
24-50-415	Truck Flat bed : 20 Tonnes	Hr	2500	3335	3050	3328	3660	3328	3660	3025	3693	4026
24-50-416	Truck Flat bed : 5 - 7 Tonnes	Hr	1500	2010	2000	1997	2196	1997	2196	1815	2216	2416
24-50-417	Truck Flat bed : 7 - 8 Tonnes	Hr	1500	2135	2300	1997	2196	1997	2196	1815	2216	2416
24-50-418	Truck Flat bed : 8 - 12 Tonnes	Hr	1875	2564	2550	2496	2745	2496	2745	2269	2769	3020
24-50-419	Truck, Tipper : 12 Tonnes	Hr	1875	2502	2450	2496	2745	2496	2745	2269	2769	3020
24-50-420	Truck, Tipper : 15 Tonnes	Hr	2250	2931	3140	2995	3294	2995	3294	2723	3323	3624
24-50-421	Truck, Tipper : 20 Tonnes	Hr	2500	3265	3830	3328	3660	3328	3660	3025	3693	4026
24-50-422	Truck, Tipper : 25 Tonnes	Hr	2500	3377	4000	3328	3660	3328	3660	3025	3693	4026
24-50-423	Truck, Tipper : 3 Tonnes	Hr	1875	2314	2300	2496	2745	2496	2745	2269	2769	3020



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Item	Description	Units	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
24-50-424	Truck, Tipper : 5 - 7 Tonnes	Hr	1875	2314	2370	2496	2745	2496	2745	2269	2769	3020
24-50-425	Turn boy	Per Day	650	800	550	800	700	1160	500	500	920	550
24-50-426	Twin vibratory beam	Hr	1800	600	378	1980	3,840	2160	540	2333	1200	540
24-50-427	Unskilled Labour	Per Day	700	600	642	617	700	800	600	600	683	633
24-50-428	Van (Delivery) 0.75 to 1 tonne	Hr	2938	3,167	1,650	3,231	2,225	3525	4230	3807	3500	2850
24-50-429	Van, pickup or similar utility vehicles b) 1.1t- 2.6t carrying capacity.	Hr	1688	2120	8235	2246	2471	2246	2471	2042	2492	2718
24-50-430	Van,pickup or similar utility vehicle 1.1 - 2.6t carrying capacity	Hr	1688	2120	7235	2246	2471	2246	2471	2042	2492	2718
24-50-431	Van,pick-up or similar utility vehicle: a-upto 10t carrying capacity	Hr	1875	2564	2750	2496	2745	2496	2745	2269	2769	3020
24-50-432	Van,pick-up or similar utility vehicle: b-1.11 - 2.66t carrying capacity	Hr	1688	2120	2500	2246	2471	2246	2471	2042	2492	2718
24-50-433	Vibrating plate compactor ,114kg -200kg operating weight	Hr	4000	3300	3629	4400	3,360	4800	3450	5184	2250	3000
24-50-434	Vibrator P/Tamper	Hr	3500	4430	4270	3850	4,032	4200	4536	4536	4450	4350
24-50-435	Vibratory compactor, smooth drum, with a flywheel of about 77kw capable of generating a centrifugal force of upto 112KN at 30Hz	Hr	4200	4,200	378	4620	2,400	5,040	336.96	5443	4200	3,780
24-50-436	Watchmen	Per Day	550	500	575	533	700	600	500	500	583	650
24-50-437	Water	Ltr	0.2	0.4	0.3	0.2	0.4	0.8	0.3	0.2	0.6	0.3
24-50-438	Water tanker/bowser self propelled 5000 - 10000 its capacity	Hr	1250	1793	6915	1664	1830	1664	1830	1513	1846	2013
24-50-439	Water Bowser - Tractor towed 5000lt	Hr	1000	1243	1530	1331	1464	1331	1464	1210	1477	1611
24-50-440	Water Bowser Self propelled 5000lt	Hr	1250	1626	1650	1664	1830	1664	1830	1513	1846	2013
24-50-441	Water or fuel Tanker - self propelled: a-3500 - 4550 litre capacity	Hr	1688	2079	2235	2246	2471	2246	2471	2042	2492	2718
24-50-442	Water or fuel Tanker - self propelled: b- 4551- 7000 litre capacity	Hr	1875	2314	2500	2496	2745	2496	2745	2269	2769	3020
24-50-443	Water or fuel Tanker - self propelled: c-7001 - 12000 litre capacity	Hr	2250	2952	3350	2995	3294	2995	3294	2723	3323	3624
24-50-444	Water pump 50mm delivery and motor	Hr	1750	2,000	1,900	1925	1750	2,100	2,520	2268	1925	1,800
24-50-445	Water Pump 50-75mm delivery and motor	Hr	2000	2,833	2,150	2200	2000	2400	2880	2592	2200	2550
24-50-446	Water Tanker : 5000 - 6000 Lt.	Hr	1250	1793	1450	1664	1830	1664	1830	1513	1846	2013



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Item	Description	Units	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
24-50-447	Water Tanker : 6000 - 8000 Lt.	Hr	1500	2093	2100	1997	2196	1997	2196	1815	2216	2416
24-50-448	Water tanker,self propelled -3500 litres to 4550 litres capacity	Hr	1688	2287	2480	2246	2471	2246	2471	2042	2492	2718
24-50-449	Welding machine	Hr	2500	1,850	1,300	2750	1,440	3000	472.5	3240	1406	1450
24-50-450	Welding rods of any gauge	No.	1384	1175	1100	1050	1119	1100	1200	1250	1517	1250
24-50-451	Weldmesh BRC A142	Sm	30694	39533	39750	36375	34853	34500	34500	36100	38833	33600
24-50-452	Weldmesh BRC A65	Sm	17636	18783	13500	16375	15167	15750	11750	16750	23958	17750
24-50-453	Weldmesh BRC A98	Sm	23682	28058	23625	23375	25289	22250	25000	25250	28400	23250
24-50-454	Whacker hand vibrator or equivalent	Hr	1500	1,150	1,100	1650	1,920	1800	1080	1944	1000	1050
24-50-455	Whacker hand vibrator or equivalent.	Hr	2000	2,000	2,100	2200	7,200	2400	3640	2592	1500	2100
24-50-456	Wheel loaders- 4 wheel drive, articulated: c-3.41-5.35m ³ SAE rated capacity	Hr	7500	8,000	7,042	8250	7,200	9000	8640	9720	7750	7200
24-50-457	Wheel loaders, 4WD articulated but 3.41-5.35m ³ SAE rated capacity	Hr	7500	8,000	6,912	8250	8,160	9000	8802	9720	7750	7200
24-50-458	Wheel barrow	No.	4065	3990	4350	4225	4197	3650	4000	4075	4067	3733
24-50-459	Wheel loader 4WD, articulated: (a) 1.5 - 2.0m ³ SAE rated bucket capacity	Hr	8500	8,150	6,912	9350	7,680	10200	8640	9500	8325	7335
24-50-460	Wheel loader 4WD, articulated: (a) 2.1 - 3.4m ³ SAE rated bucket capacity	Hr	8000	8,000	7,880	8800	7,680	9600	8640	10000	8000	7200
24-50-461	Wheel loader CAT 955 or Equivalent	Hr	8000	8,000	6,500	8800	8,100	9600	9850	9600	8000	7200
24-50-462	Wheel Roller 6-8 tonne	Hr	5219	5,267	4,500	5741	5219	6,263	7,515	6764	4,000	4,740
24-50-463	Grass	m ²	450	261	380	584	200	450	715	450	550	380
24-50-464	Red Soil	m ³	1,100	2,489	1,429	1,429	1,905	2,381	1,747	1,100	3,898	1,429
24-50-465	Manure	m ³	600	2,619	1,190	601	1,429	952	953	600	1,429	1,190
24-50-466	Stone for Gabions	Ton	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
24-50-467	Wooden Formwork	m ²	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
24-50-468	Precast Culvert - 450mm	m	2,550	2,417	2,671	2,225	3,717	2,167	2,604	2,550	2,850	2,671
24-50-469	Manhole Cover Cast Iron	Piece	9500	9500	9500	9500	9500	9500	9500	9500	9500	9500
24-50-470	Manhole Cover Slab	Piece	5,000	5,296	5,438	5,298	5,405	5,062	5,088	5,000	5,082	5,438
24-50-471	Gully pot with grating	Piece	12,000	12,073	12,197	12,167	12,226	12,070	12,099	12,000	12,304	12,197
24-50-472	Mesh Wire A142	m ²	372	337	524	362	289	329	373	372	393	524
24-50-473	Hessian Cloth	m ²	168	160	220	191	206	160	128	168	230	220
24-50-474	Asphalt/Bitumen/Concrete Cutter	Hr	1,750	1,750	1,750	2,500	1,508	1,750	1,750	1,750	1,500	1,750
24-50-475	Asphalt Finisher	Hr	6,313	6,000	6,313	8,500	8,250	5,600	6,313	6,313	6,313	6,313



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Item	Description	Units	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
24-50-476	Milling Machine	Hr	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
24-50-477	Resurface Machine	Hr	32000	32000	32000	32000	32000	32000	32000	32000	32000	32000
24-50-478	Road Heater	Hr	26700	26700	26700	26700	26700	26700	26700	26700	26700	26700
24-50-479	Melting Pod for Paint	Hr	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
24-50-480	Reflective Glass Beads	kg	180	180	180	180	180	180	180	180	180	180
24-50-481	Road marking paint -Black	Litre	1,002	957	963	864	970	864	1,005	1,002	1,050	963
24-50-482	Paint - White	Litre	525	525	525	525	525	525	525	525	525	525
24-50-483	Paint - Black	Litre	525	525	525	525	525	525	525	525	525	525
24-50-484	Steel Angle	kg	246	355	277	253	274	362	341	246	360	277
24-50-485	Steel Plate	kg	190	190	190	190	190	190	190	190	190	190
24-50-486	Steel Bollard	kg	190	190	190	190	190	190	190	190	190	190
24-50-487	Aggregation - Jacking	kg	30	30	30	30	30	30	30	30	30	30
24-50-488	Aggregation - Washing	kg	30	30	30	30	30	30	30	30	30	30
24-50-489	Muddy water processing machine	Day	52000	52000	52000	52000	52000	52000	52000	52000	52000	52000
24-50-490	Truck with crane - 4t	Hr	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500
24-50-491	Concrete Anchor	No.	300	300	300	300	300	300	300	300	300	300
24-50-492	Water Stopper	No.	2,239	2,000	1,100	1,100	2,239	1,100	1,100	2,239	1,100	1,100
24-50-493	Water Stop Cement	kg	200	450	450	450	450	450	450	200	450	450
24-50-494	Power Suction Car	Hr	7000	7000	7000	7000	7000	7000	7000	7000	7000	7000
24-50-495	Equipment for Underground pipe jacking - Fixing Part	Day	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
24-50-496	Equipment for Underground pipe jacking - Moving Part	Day	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
24-50-497	Equipment for Underground pipe jacking	Day	21000	21000	21000	21000	21000	21000	21000	21000	21000	21000
24-50-498	Equipment for lead pipe jacking (fixing part)	Day	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300
24-50-499	Equipment for lead pipe jacking (moving part)	m	100	100	100	100	100	100	100	100	100	100
24-50-500	Equipment for lead pipe jacking	Day	35000	35000	35000	35000	35000	35000	35000	35000	35000	35000
24-50-501	Duct Pipe (PVC150)	m	451	481	458	464	483	567	452	451	458	458
24-50-502	Cypress	m3	74,658	29,845	52,907	22,868	57,163	38,760	57,332	74,658	58,096	52,907
24-50-503	Boring Machine -81kW	Day	54000	54000	54000	54000	54000	54000	54000	54000	54000	54000
24-50-504	Cutter-set	No.	44100	44100	44100	44100	44100	44100	44100	44100	44100	44100
24-50-505	Core-tube	No.	44500	44500	44500	44500	44500	44500	44500	44500	44500	44500
24-50-506	Magnifying-bit	No.	48200	48200	48200	48200	48200	48200	48200	48200	48200	48200
24-50-507	Shank-rod	No.	283700	283700	283700	283700	283700	283700	283700	283700	283700	283700
24-50-508	Driving-adapter	No.	1514	1514	1514	1514	1514	1514	1514	1514	1514	1514
24-50-509	drilling-pipe	No.	49300	49300	49300	49300	49300	49300	49300	49300	49300	49300



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Item	Description	Units	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
24-50-510	Ring-bit	No.	97100	97100	97100	97100	97100	97100	97100	97100	97100	97100
24-50-511	Water-swivel	No.	90700	90700	90700	90700	90700	90700	90700	90700	90700	90700
24-50-512	Boring machine	Day	53400	53400	53400	53400	53400	53400	53400	53400	53400	53400
24-50-513	Earth bar - 10*1500mm	No.	500	500	500	500	500	500	500	500	500	500
24-50-514	Lighting pole - 7.6m	No.	39,460	42,000	39,993	40,597	42,213	39,543	39,577	39,460	40,105	39,993
24-50-515	Cable for light	m	550	550	550	550	550	550	550	550	550	550
24-50-516	Accessories for light	Set	4010	4010	4010	4010	4010	4010	4010	4010	4010	4010
24-50-517	Lamp	No.	14400	14400	14400	14400	14400	14400	14400	14400	14400	14400
24-50-518	Lighting pole - 10m	No.	74,227	75,667	77,093	76,365	80,047	74,384	74,447	74,227	75,439	77,093
24-50-519	Control panel	No.	35,967	38,283	37,127	37,003	34,500	36,043	36,074	35,967	36,554	37,127
24-50-520	Cable for control panel	m	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110
24-50-521	Accessories for control panel	Set	39400	39400	39400	39400	39400	39400	39400	39400	39400	39400
24-50-522	Meter	No.	4,500	4,176	4,900	4,022	3,982	4,607	3,441	4,500	4,451	4,900
24-50-523	Bolts with nuts and washers (short)	No.	272	130	160	272	273	272	272	272	100	160
24-50-524	Bolts with nuts and washers (long)	No.	322	160	158	322	323	322	322	322	323	158
24-50-525	Electricity	Kw/h	30	30	30	30	30	30	30	30	30	30
24-50-526	Beam Straightener	Hour	10700	10700	10700	10700	10700	10700	10700	10700	10700	10700
24-50-527	Guardrail Beam	No.	11,350	9,000	8,000	11,366	11,388	11,357	11,359	11,350	11,401	8,000
24-50-528	Spacers	No	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300
24-50-529	Warning triangular sign - 600mm	No.	14000	14000	14000	14000	14000	14000	14000	14000	14000	14000
24-50-530	Priority triangular sign - 600mm	No.	14000	14000	14000	14000	14000	14000	14000	14000	14000	14000
24-50-531	Standard informatory sign	No.	13800	13800	13800	13800	13800	13800	13800	13800	13800	13800
24-50-532	Non-standard informatory sign - less than 1m2	No.	27400	27400	27400	27400	27400	27400	27400	27400	27400	27400
24-50-533	Road Kerb	No.	450	450	450	450	450	450	450	450	450	450
24-50-534	Road channel	No.	350	350	350	350	350	350	350	350	350	350



4.2 Regional Bill of Quantities Unit Rates

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
Activity Group:- SITE CLEARANCE													
Bill No. 4													
04-50-001	Mechanical mowing	m ²	LB-MB	15	17	16	20	17	18	20	14	21	14
04-50-002	Grass Cutting	m ²	LB	10	11	11	13	12	12	13	10	14	9
04-50-003	Heavy Bush Clearing	m ²	LB	25	28	26	30	29	30	33	24	35	22.5
04-50-004	Light Bush Clearing	m ²	LB	15	17	16	20	17	18	20	14	21	13.5
04-50-005	Prunning of Tree branches	Ks	LB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
04-50-006	Tree cutting and stump removal (200-450 mm)	No	LB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
04-50-007	Tree cutting and stump removal (>450mm)	No	LB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
04-50-008b	Clearing obstructions (mechanical)	m ²	LB-MB	350	385	368	455	400	420	455	333	490	315
04-50-008a	Clearing obstructions (manual)	m ³	LB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
04-50-009a	Stripping and grubbing (mechanical)	m ²	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
04-50-009a	Stripping and grubbing (manual)	m ²	LB	250	275	263	325	287.5	300	325	238	350	225
04-50-010	Excavate remove & of concrete structures	Ks	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
04-50-011	Stumps Removal (500- 1500mm girth)	No	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
04-50-012	Stumps Removal (>1500mm girth)	No	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
04-50-013	Remove and store for re-use flex beam guardrails and guardrail posts	Meter	LB-MB	3000	3300	3150	3900	3450	3600	3900	2850	4200	2700
04-50-014	Remove and store for re-use Street Lighting fittings including electricity poles, cables and control pillars	Meter	LB-MB	500	550	525	650	575	600	650	475	700	450
04-60-001	Clear site on road reserve including removal of trees, hedges, bushes and other vegetation or deterious organic material, grub up roots and back fill to 100% MDD (AASHTO T99) with approved material in accordance with the specification	Ha	LB-MB	180000	198000	189000	234000	207000	216000	234000	171000	252000	162000
04-60-002	Remove top soil to maximum depth of 200mm as directed by the Engineer stockpile good material for later top soiling of slide slopes and landscaping of quarries and borrow pits	m ³	LB-MB	250	275	263	325	287.5	300	325	238	350	225
04-60-003	Rip Existing pavement layer up to sub grade and stock pile for use as directed by the Engineer	m ³	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
04-60-004	Top soil Stripping	m ²		350	385	368	455	402.5	420	455	333	490	315
04-60-005	Removal of existing pipe culverts to spoil or stock file for re-use as directed by the Engineer	Meter		1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
04-60-006	Removal of existing road signs and stock pile as directed by the Engineer	Meter	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
04-60-007	Provide, plant and maintain approved trees in accordance with specifications or as directed by the Engineer	No	LB-MB	500	550	525	650	575	600	650	475	700	450

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
04-60-008	Demolish and dispose pipe culverts inlets and outlet structures	No	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
04-60-009	Removal of Mass Boulders and debris machine based activity.	No	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
04-60-010	Removal of drop inlets of all sizes	No	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
04-60-011	Clear site for construction of bridge including removal of hedges, bushes, trees(except those designated to remain by the Engineer) vegetation and other deleterious materials and prepare ground for setting out of the bridge	Ha	LB-MB	180000	198000	189000	234000	207000	216000	234000	170000	252000	162000
04-60-012	Hack existing concrete to box culvert or any other structure to expose adequate length of R/F	m ³	LB-MB	750	825	788	975	862.5	900	975	713	1050	675
Activity Group:- EARTHWORKS													
Bill No. 5													
05-50-001	Slotting for establishment of vertical alignment	Meter		400	440	420	520	460	480	520	380	560	360
05-50-002	Excavation & spread in soft material & compact	m ³	LB	600	660	630	780	690	720	780	570	840	540
05-50-003	Excavation & spread in hard material and compact	m ³	LB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
05-50-004	Excavation to Level & Compaction	m ³	LB	400	440	420	520	460	480	520	380	560	360
05-50-005	Spreading & Compaction Camber Formation	m ²	LB	400	440	420	520	460	480	520	380	560	360
05-50-006	Fill in soft material and compact	m ³	LB	400	440	420	520	460	480	520	380	560	360
05-50-007	Fill in hard material and compact	m ³	MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
05-50-008	Cut to spoil in Soft	m ³	LB	400	440	420	520	460	480	520	380	560	360
05-50-009	Cut to spoil in Hard	m ³	MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
05-50-010	Cut to fill in soft material	m ³	LB	600	660	630	780	690	720	780	570	840	540
05-50-011	Cut to fill in hard material	m ³	MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
05-50-012	Rock fill to swamp	m ³	MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
05-50-013	Filter to swamp under, over and around rock fill	m ²	MB	1800	1980	1890	2340	2070	2160	2340	1710	2520	1620
05-50-014	Rock fill to embankment construction	m ³	MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
05-50-015	Grassing	m ²	LB	500	550	525	650	575	600	650	475	700	450
05-50-016	Backslope/ Slope Maintenance	m ²	LB	550	605	578	715	632.5	660	715	523	770	495
05-50-017	Scarify water and compact existing ground to at least 95% MDD (AASHTO T99) to a depth of 150mm below ground level.	m ³	MB	250	275	263	325	287.5	300	325	238	350	225
05-60-001	Compaction of existing ground under embankments to 95% MDD (AASHTO T99) in layers of 150mm	m ³	LB-MB	350	385	368	455	402.5	420	455	333	490	315
05-60-002	Fill in soft material including benching of shoulders and embankment and compact to 95% MDD (AASHTO) in layers of 150mm as directed by the Engineer	m ³	LB-MB	600	660	630	780	690	720	780	570	840	540
05-60-003	Fill in hard material (rock fill on selected sections) and compact to 95%MDD(AASHTO T99)	m ³	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
05-60-004	Compaction of top 300mm below formation in cuts and fills to 100% MDD	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
05-60-005	Selected materials for improved sub grade of minimum soils class S3 (CBR 10): dump, spread, water, mix and compact to 100% (MDD AASHTO T.99) as per specification	m ³	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
05-60-006	Landscaping	m ³	LB-MB	750	825	788	975	862.5	900	975	713	1050	675
05-60-007	Overhaul of material	m ³	LB	1800	1980	1890	2340	2070	2160	2340	1710	2520	1620
05-60-008	Excavation in swamp	m ³	LB	600	660	630	780	690	720	780	570	840	540
05-60-009	Top soiling as instructed	m ²	LB	400	440	420	520	460	480	520	380	560	360
05-60-010	Compaction of existing ground below cuts to at least 97% MDD (AASHTO T.180) including all necessary and water to a depth of 150mm below ground level.	m ³	LB-MB	600	660	630	780	690	720	780	570	840	540
05-60-011	Compaction of 300mm below formation level in cuts to 97% MDD (AASHTO T.180)	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
05-60-012	Backfill with soft material and compact to 100% MDD (AASHTO T199) in layers not exceeding 300mm thickness trenches formed after removal of existing culverts.	m ³	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
05-60-013	Provide improved sub grade material to a thickness of 300mm compaction to 100% MDD (AASHTO T99) in layers not exceeding 150mm	m ³	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
05-60-014	Scarify existing bituminous pavement material and store for re-use or cart away to spoil	m ³	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
05-60-015	Water & Compact scarified surface to achieve 95% MDD	m ²	LB-MB	400	440	420	520	460	480	520	380	560	360
05-60-016	Top soiling and grassing over side slopes, cuts and fills	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
05-60-017	Compaction to 150 mm depth below formation in fills and cuts to 100% MDD (AASHTO T99)	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
05-60-018	Provide and place rock fill on the embankment side as directed by the Engineer	m ³	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
05-60-019	Cut in hard material but in swamp	m ³	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
05-60-020	Provide lay and lightly compact top soil to depth of 50mm min. landscape	m ²	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
Activity Group:- EXCAVATION AND FILLING FOR STRUCTURES													
Bill No. 7													
07-50-001a	Excavate for structure in soft material (manual)	m ³	LB	400	440	420	520	460	480	520	380	560	360
07-50-001b	Excavate for structure in soft material (mechanical)	m ³	MB	400	440	420	520	460	480	520	380	560	360
07-50-002a	Excavate for structure in hard material (manual)	m ³	LB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
07-50-002b	Excavate for structure in hard material (mechanical)	m ³	MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
07-50-003	River training in soft material	m ³	LB	1800	1980	1890	2340	2070	2160	2340	1710	2520	1620

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
07-50-004	River Diversion	m ³	MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
07-50-005	Porous filter material	m ³	LB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
07-50-006	Selected granular fill material	m ³	LB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
07-50-007	Cut to fill in soft material	m ³	LB	400	440	420	520	460	480	520	380	560	360
07-50-008	Construction of cofferdams	m ³	LB	6500	7150	6825	8450	7475	7800	8450	6175	9100	5850
07-50-009	River Training in hard material	m ³	LB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
07-60-001	Excavate and back fill for gabions in soft materials	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
07-60-002	Provide and place gabion boxes and mattresses as specified or as directed by the Engineer	m ²	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
07-60-003	Provide and place rock fill to gabions and mattresses	m ³	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
07-60-004	Allow for grouting of the rock fill where necessary	m ²	LB-MB	600	660	630	780	690	720	780	570	840	540
07-60-005	Provide and place 200mm thick stone pitching including grouting to aprons upstream and down stream of bridges and culverts as detailed in the drawing or as directed by the Engineer	m ²	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
07-60-006	Provide fabric to the sides and the top of the gabions (300g/M ²)	m ²	LB-MB	750	825	788	975	862.5	900	975	713	1050	675
07-60-007	Excavate for gabions in hard material	m ³	LB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
07-60-008	Backfill to existing channels in soft material	m ³	LB	400	440	420	520	460	480	520	380	560	360
07-60-009	Provide dumped rip-rap stone fill	m ³	LB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
07-60-010	Provide closed joined-rip-rap stone	m ³	LB	600	660	630	780	690	720	780	570	840	540
07-60-011	Provide cement grouting to gabions faces as instructed	m ²	LB	600	660	630	780	690	720	780	570	840	540
07-60-012	Stone pitching of the outlets / inlets	m ²		2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
07-60-013	Provide place and compact rock fill to specifications below structure	m ³		1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
07-60-014	Excavate to any depth of structures and river training in hard material as instructed by the Engineer	m ³	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
07-60-015	Provide, place& compact selected soft fill material behind abutments and wing walls as directed by the Engineer.	m ²	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
07-60-016	Provide and place gabion mattresses 0.3m thick	m ³	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
07-60-017	Allow for grouting of stone pitching	m ²	LB-MB	600	660	630	780	690	720	780	570	840	540
07-60-018	Excavate in water logged material and spoil	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
07-60-019	Provide and erect concrete posts for guardrails complete with spacers (size and interval) as per specifications or as directed by the Engineer	No	LB-MB	3000	3300	3150	3900	3450	3600	3900	2850	4200	2700
07-60-020	Excavate and backfill for gabions in soft material and compact the excavation to receive the gabion boxes and/or spoil the excavated material as directed by the Engineer	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
07-60-021	Provide and place macafferri or equivalent 2x1x1 m gabions and mattresses as shown on the drawings or as directed by the Engineer.	m ²	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
07-60-022	Provide and place cement grouted stone pitching as directed by the Engineer. Cl. 710 of specs	m ²	LB-MB	600	660	630	780	690	720	780	570	840	540
07-60-023	Provide and compact porous fill material (6/10mm chippings or similar approved) behind structures. Cl. 707 of specs.	m ³	LB-MB	12500	13750	13125	16250	14375	15000	16250	11875	17500	11250
07-60-024	Carry out river training works as directed by the Engineer in compliance with Cl. 702, 704, 708 & 709 of specs.	m ³	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
07-60-025	Provide and place 2x1x1m gabion mesh as shown on the drawings or as directed by the Engineer	m ²	LB-MB	750	825	788	975	862.5	900	975	713	1050	675
07-60-026	Provide and place rock fill to gabion boxes	m ³	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
07-60-027	Provide and place Filter fabric behind porous filter material	m ²	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
07-60-028	Carry our Concrete blinding to gabions	m ²	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
07-60-029	Excavate for protection works in soft material	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
07-60-030	Excavate in hard material for structures	m ³	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
07-60-031	Excavate for protection works in hard material	m ²	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
07-60-032	Concrete blinding to gabions	m ³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
07-60-033	Allow for protection of structures	m ²	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
07-60-034	Provide and backfill approved material around new box culverts, compact to 100% MDD (AASHTO T99) in layers not exceeding 150mm	m ³	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
07-60-035	Provide pre-cast/insitu covers slabs to drains at Trading centers or as directed, reinforce with Y12 and Y8 bars. Dimensions of 1.8m x 0.9m.	No.	LB-MB	20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
07-60-036	Excavate in soft material, depth but not exceeding 2.0m	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
07-60-037	Porous filter material to any depth or width as directed by Engineer	m ³	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
07-60-038	Selected granular fill material as directed by Engineer	m ³	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
07-60-039	Gabion mattresses as scour protection to river bed	m ²	LB-MB	1800	1980	1890	2340	2070	2160	2340	1710	2520	1620
07-60-040	Filter fabric behind gabion walls	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
07-60-041	River training works as directed by Engineer	LS	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
07-60-042	As item 07-60-041 above, but gabion boxes	m ³	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
07-60-043	As item 07-60-041 but gabion mattresses	m ²	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
07-60-044	As item 07-60-036 above, depth exceeding 2.0m but not exceeding 4.0m	m ³	LB-MB	600	660	630	780	690	720	780	570	840	540
07-60-045	As item 07-60-036 above, depth exceeding 4.0m	m ³	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
07-60-046	Extra over item 07-60-044 to 07-60-045 above for excavating in rock	m ³	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
07-60-047	Hand packed, compacted hardcore under approach slab	m ³	LB-MB	1800	1980	1890	2340	2070	2160	2340	1710	2520	1620
07-60-048	Gabon works on Embankments/high cuts	No	LB-MB	400	440	420	520	460	480	520	380	560	360
07-60-049	Excavate in soft material for gabions	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
07-60-050	As item 07-60-049 above, but depth on hard material exceeding 4.0m	m ³	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
07-60-051	provide and install gabion mesh	m ²	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
07-60-052	Porous filter fabric under and or behind gabions	m ³	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
07-60-053	Provide and backfill approved material around new box culverts, compact to 100% MDD (AASHTO T99) in layers not exceeding 150mm	m ³	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
Activity Group:- CULVERT AND DRAINAGE WORKS													
Bill No. 8													
08-50-001a	Ditch cleaning - mechanical	Meter	MB	300	330	315	390	345	360	390	285	420	270
08-50-001a	Ditch cleaning - manual	Meter	LB	250	275	263	325	287.5	300	325	238	350	225
08-50-002	Ditch Works - Earth fill in ditches	m ³	LB	400	440	420	520	460	480	520	380	560	360
08-50-003	Ditch Works - Rock fill in ditches	m ³	MB	400	440	420	520	460	480	520	380	560	360
08-50-004a	Ditch/mitre drain excavation in soft (mechanical)	m ³	MB	600	660	630	780	690	720	780	570	840	540
08-50-004b	Ditch/mitre drain excavation in soft (manual)	m ³	LB	400	440	420	520	460	480	520	380	560	360
08-50-004c	Ditch/mitre drain excavation in hard (mechanical)	m ³	MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
08-50-004d	Ditch/mitre drain excavation in hard (manual)	m ³	LB	800	880	840	1040	920	960	1040	760	1120	720
08-50-005	Open lined drain cleaning	Meter	LB	300	330	315	390	345	360	390	285	420	270
08-50-006	Open lined drain repairs	m ²	LB	400	440	420	520	460	480	520	380	560	360
08-50-007	Covered (slotted) lined drain construction	m ²	LB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
08-50-008	Covered (slotted) lined drain cleaning	Meter	LB	3000	3300	3150	3900	3450	3600	3900	2850	4200	2700
08-50-009	Covered (slotted) lined drain repairs	m ²	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-50-010	Construction of a Canalised drain (RC)	Meter	LB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
08-50-011	Cleaning of a Canalised drain (RC)	Meter	LB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
08-50-012	Canalised drain repairs (RC)	m ²	LB	1600	1760	1680	2080	1840	1920	2080	1520	2240	1440
08-50-013	Lay drain lining.	m ²	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
08-50-014	Gulley pot construction	No	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
08-50-015	Gulley pot cleaning	No	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
08-50-016	Gulley pot repairs	No	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
08-50-017	Gulley pot covers replacement	No	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
08-50-018	Gulley pot frames replacement	No	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
08-50-019	Open Drain Construction (Half Round)	Meter	LB	3000	3300	3150	3900	3450	3600	3900	2850	4200	2700
08-50-020	Open Drain (Half Round) Repair/Replacement	Meter	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-50-021	Laying of Side Slabs	m ²	LB	2400	2640	2520	3120	2760	2880	3120	2280	3360	2160
08-50-022	Repair of Side Slabs	m ²	LB	2400	2640	2520	3120	2760	2880	3120	2280	3360	2160

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
08-50-023	Manhole Construction	No	LB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
08-50-024a	Manhole construction less than 1m	No	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
08-50-024b	Manhole construction more than 1m	No	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
08-50-025	Manhole Repairs	No	LB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
08-50-026	Replacement of manholes chamber rings	No	LB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
08-50-027	Replacing: Conc. haunching	m ³	LB	3400	3740	3570	4420	3910	4080	4420	3230	4760	3060
08-50-028	Replacement of manhole cover frames	No	LB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
08-50-029	Manhole covers construction/replacement	No	LB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
08-50-030	Manhole covers repairs	No	LB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
08-50-031	Provide and place class 20/20 concrete as lining for storm water drains Type D600mm in accordance with drawings including reinforcement, bedding, weep holes and backfilling with selected materials as directed by the Engineer	Meter	LB	17500	19250	18375	22750	20125	21000	22750	16625	24500	15750
08-50-032	As item 08-50-031 above but for Drain Type D450	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-50-033	Desilt and clean existing culverts to free flowing condition	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-50-034	Provide and install composite gulley pot cover	NO.	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
08-60-001	Culvert Cleaning- Partially blocked - 300mm	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-002	Culvert Cleaning- Partially blocked - 450mm	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-003	Culvert Cleaning- Partially blocked - 600mm	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-004	Culvert Cleaning- Partially blocked - 900mm	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-005	Culvert Cleaning: Partially blocked-1200mm	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-006	Culvert Cleaning- Fully Blocked - 300mm	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-007	Culvert Cleaning- Fully Blocked - 450mm	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-008	Culvert Cleaning- Fully Blocked - 600mm	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-009	Culvert Cleaning- Fully Blocked - 900mm	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-010	Culvert Cleaning- Fully Blocked - 1200mm	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-011	Culvert Repair/Replacement - 300mm.	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-012	Culvert Repair/Replacement - 450mm.	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-013	Culvert Repair/Replacement - 600mm.	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-014	Culvert Repair/Replacement - 900mm.	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-015	Culvert Repair/Replacement - 1200mm.	Meter	LB	400	440	420	520	460	480	520	380	560	360
08-60-016	Headwall repair - masonry	No	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
08-60-017a	Headwall construction for 450mm pipe culvert	No	LB-MB	5600	6160	5880	7280	6440	6720	7280	5320	7840	5040
08-60-017b	Headwall construction for 600mm pipe culvert	No	LB-MB	5600	6160	5880	7280	6440	6720	7280	5320	7840	5040
08-60-017c	Headwall construction for 900mm pipe culvert	No	LB-MB	5600	6160	5880	7280	6440	6720	7280	5320	7840	5040
08-60-017d	Headwall construction for 1200mm pipe culvert	No	LB-MB	5600	6160	5880	7280	6440	6720	7280	5320	7840	5040
08-60-018a	Culvert Installation-300mmUnhounded	Meter	LB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
08-60-018b	Culvert Installation 300 mm with surround	Meter	LB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
08-60-019	Culvert Installation-450mmUnhounded	Meter	LB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
08-60-020	Culvert Installation 450 mm with surround	Meter	LB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
08-60-021	Culvert Installation-600mmUnhounded	Meter	LB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
08-60-022	Culvert Installation 600 mm with surround	Meter	LB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
08-60-023	Culvert Installation-900mmUnhounded	Meter	LB	12000	13200	12600	15600	13800	14400	15600	11400	16800	10800
08-60-024	Culvert Installation 900 mm with surround	Meter	LB	12000	13200	12600	15600	13800	14400	15600	11400	16800	10800
08-60-025	Culvert Installation-1200mm unhounded	Meter	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
08-60-026	Culvert Installation 1200 mm with surround	Meter	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
08-60-027	Excavate in soft material for culverts	m ³	LB	400	440	420	520	460	480	520	380	560	360
08-60-028	Excavate in hard material for culverts	m ³	MB	400	440	420	520	460	480	520	380	560	360
08-60-029	Provide , lay and join 450mm inner dia concrete pipes	Meter	LB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
08-60-030	Provide , lay and join 600mm inner dia concrete pipes	Meter	LB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
08-60-031	Provide , lay and join 900mm inner dia concrete pipes	Meter	LB	9000	9900	9450	11700	10350	10800	11700	8550	12600	8100
08-60-032	Provide, place and compact class 15/20 concrete	m ³	LB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
08-60-033	Provide, place and compact class 20/25 concrete	m ³	LB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
08-60-034	Provide and place A142 fabric mesh reinforcement	m ²	LB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
08-60-035	Selected backfill material	m ³	LB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
08-60-036	Cascades Construction (Concrete)	m ²	LB	3500	3850	3675	4550	4025	4200	4550	3325	4900	3150
08-60-037	Cascades Construction (Masonry)	m ²	LB	3500	3850	3675	4550	4025	4200	4550	3325	4900	3150
08-60-038	Cascades Repair/Replacement (Concrete)	m ²	LB	3500	3850	3675	4550	4025	4200	4550	3325	4900	3150
08-60-039	Cascades Repair/Replacement(Masonry)	m ²	LB	3500	3850	3675	4550	4025	4200	4550	3325	4900	3150
08-60-040	Provide, place and compact class 20/20 concrete	m ³	LB	200	220	210	260	230	240	260	190	280	180
08-60-041a	Masonry Headwall Type 1	m ³	LB-MB	4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-60-041b	Masonry Headwall Type 2	m ³		4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-60-041c	Masonry Headwall Type 3a	m ³		4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-60-041d	Masonry Headwall Type 3b	m ³		4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-60-041e	Masonry Headwall Type 4	m ³		4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-60-042a	Concrete Headwall Type 1	m ³	LB-MB	4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-60-042b	Concrete Headwall Type 2	m ³	LB-MB	4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-60-042c	Concrete Headwall Type 3a	m ³		4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-60-042d	Concrete Headwall Type 3b	m ³		4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-60-042e	Concrete Headwall Type 4	m ³		4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-70-001	Stone Pitching	m ²	LB	4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-70-002	Stone pitching repair	m ²	LB	4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-70-003	Gabion repair	No	LB	4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-70-004	Provide and place Gabion Installation	No	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-70-005	Provide and place Rock fill to Gabions	m ³	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-70-006	Construction of scour checks (concrete)	m ³	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
08-70-007	Construction of scour checks (masonry)	No	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-70-008	Construction of scour checks (wood)	No	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-70-009	Scour check repair - masonry	No	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-70-010	Scour check repair wooden	No	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-70-011	Scour check repair - concrete	No	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-70-012	At-level Scour Checks	No	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-70-013	Gulley head protection-Stone Chute Stabilization	No	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-70-014	Gulley head protection-Stone & Post Chute Stabilization	No	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-70-015	Stone Check Dams	No	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-70-016	Stone & Post Check Dams	No	LB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-70-017	Rock fill to sub-soil drains	Meter	LB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-70-018	Rock fill below culverts	Meter	LB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-70-019	Construct earth dams	Meter	LB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-70-020	Provide and place invert block drains with two course side slabs.	Meter	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-70-021	Excavate in soft material to any depth for minor drainage structures including cascades, scour checks, catch pits, retaining walls etc.	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
08-70-022	Provide, lay and joint 150mm diameter porous and perforated concrete pipes to subsoil drains or behind structures as shall be directed by the engineer.	m	LB-MB	400	440	420	520	460	480	520	380	560	360
08-70-023	Ditto 08-70-021 but with four side slabs	m	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-70-024	Ditto 08-70-022 but with four side slabs	m	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-70-025	Provide and place A252 fabric mesh reinforcement or equivalent	m ²	LB-MB	750	825	788	975	862.5	900	975	713	1050	675
08-70-026	Provide and place class 25/20 concrete to beds and surrounds.	m ³	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
08-70-027	Excavate, remove and handover to client ARMCO culverts including demolition of inlet and outlet structures	m	LB-MB	400	440	420	520	460	480	520	380	560	360
08-70-028	Construct concrete scour checks as directed by the Engineer.	m ³	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-70-029	Provide crushed rock backfill in subsoil drains	m ³	LB-MB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
08-70-030	Cleaning existing hydraulic structures	m	LB-MB	3000	3300	3150	3900	3450	3600	3900	2850	4200	2700
08-70-031	Selected Backfill for Culverts	m ³	LB-MB	3000	3300	3150	3900	3450	3600	3900	2850	4200	2700
08-70-032	Clean and shape existing outfall an mitre drains to free flow conditions	m	LB-MB	400	440	420	520	460	480	520	380	560	360
08-70-033	Class 20/20 to concrete to headwall, wing walls, aprons, toe walls, inlets and outlets to pipe culverts	m ³	LB-MB	200	220	210	260	230	240	260	190	280	180
08-70-034	Provide and place A142 fabric mesh reinforcement or equivalent for item 8.08	m ²	LB-MB	750	825	788	975	862.5	900	975	713	1050	675
08-70-035	Provide and place IBDs with single side slabs	Meter	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
08-70-036	Provide and place IBDs with double side slabs	Meter	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-70-037	Clean existing drainage structures of any description and size	Meter	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-70-038	Provide and place class 25/20 concrete reinforced with A142 BRC Mesh for open drain channels of any description and size	m ³	LB-MB	750	825	788	975	862.5	900	975	713	1050	675
08-70-039	Construct scour checks as directed by the Engineer	No.	LB-MB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
08-70-040	Excavate and provide materials and construct subsoil drains, back fill with approved hard material where instructed by the engineer.	m ³	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
08-70-041	Provide fabric to sub soil drains.	m ²	LB-MB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
08-70-042	Excavate for provide, lay and joint 300mm IBD with 2 courses of side slabs on either side.	m	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
08-70-043	Ditto but with 4 side slabs on either sides.	m	LB-MB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
08-70-044	Excavate in soft material for minor drainage structures	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
08-70-045	Provide, place and compact rock fill below culverts	m ³	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080
08-70-046	Carry out 300 mm thick stone pitching as directed by the Engineer	m ²	LB-MB	600	660	630	780	690	720	780	570	840	540
08-70-047	Extra over item 08-70-046 above for grouting	m ²	LB-MB	800	880	840	1040	920	960	1040	760	1120	720
08-70-048	Provide and lay ogee jointed concrete pipes 600mm diameter	Meter	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
08-70-049	Provide and lay ogee jointed concrete pipes 900mm diameter	Meter	LB-MB	12000	13200	12600	15600	13800	14400	15600	11400	16800	10800
08-70-050	Provide and lay ogee jointed concrete pipes 1200mm diameter	Meter	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
08-70-051	Provide, place and compact class 25/20 concrete to beds, surrounds and haunches	m ³	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
08-70-052	Construct concrete scour checks as directed by the Engineer	m ³	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
08-70-053	Allow for construction of outfall above 50m from the carriageway as directed by the Engineer	m ³	LB-MB	50000	55000	52500	65000	57500	60000	65000	47500	70000	45000
08-70-054	Construct in concrete class 15(20) side drains scour checks as instructed	m ³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
08-70-055	Provide and place precast concrete slabs 600mm x 600mm x 50mm and place over open lined drains in trade centres and markets	No	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
08-70-059	Provide, lay and joint half round 450mm concrete pipes on high fill and steep slopes as directed by engineer	m	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
08-70-060	Provide 150mm thick stone pitching and grout with mortar as directed by the Engineer.	m ²	LB-MB	1800	1980	1890	2340	2070	2160	2340	1710	2520	1620
08-70-061	Construct in concrete class 15/20 side drains scour checks as directed by the Engineer	m ³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
08-70-062	Provide and place A193 fabric wire mesh reinforcement	m ²	LB-MB	650	715	683	845	747.5	780	845	618	910	585
08-80-001	Access drift - stone pitching	m ²	LB	1800	1980	1890	2340	2070	2160	2340	1710	2520	1620
08-80-002	Drifts - Concrete	m ³		4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
08-90-001	Excavate for inlet, out fall, catch water drains, mitre and cut-off drains in soft material.	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
08-90-002	Excavate for inlet, out fall, catch water drains,	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
	mire and cut-off drains in hard material			400	440	420	520	460	480	520	380	560	360
08-90-003	Excavation in soft material for pipe culverts, headwalls, wing walls, apron, toe walls and drop inlets and compact as specified or as directed by the Engineer	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
08-90-004	Excavation in hard material for pipe culverts, headwalls, wing walls, apron, toe walls and drop inlets and compact as specified or as directed by the Engineer	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
08-90-005	Excavate, remove and dispose of existing damaged pipe culverts as directed by the engineer	M	LB-MB	3000	3300	3150	3900	3450	3600	3900	2850	4200	2700
08-90-006	Provide, lay and join 600mm I.D precast concrete pipes	m ³	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
08-90-007	Provide, lay and join 900mm I.D precast concrete pipes for cross culverts	m ³	LB-MB	12000	13200	12600	15600	13800	14400	15600	11400	16800	10800
08-90-008	Provide and place class 15/20 concrete to beds	m ³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
08-90-009	Provide and place class 25/20 concrete to headwalls, wing walls, aprons, surrounds to walls, inlets and outlets to pipe culverts including formwork	m ³	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
08-90-010	Provide and place class 20/20 concrete scour checks as directed by the Engineer	No	LB-MB	17250	18975	18113	22425	19837.5	20700	22425	16388	24150	15525
08-90-011	Provide and place Invert block drains with single slide slabs 600mm diameter	m ³	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
08-90-012	Clean 600mm I.D concrete culverts to free flowing condition	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
08-90-013	Clean 900mm I.D concrete culverts to free flowing condition	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
08-90-014	Excavate for, provide, place and joint the 750mm wide PCC invert channels as detailed on the drawings for drainage of storm water along market roads	m ³	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
08-90-015	Provide and place 200mm thick stone pitching including grouting to outfall drains as detailed in the drawings or as directed by the Engineer	m ³	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
08-90-016	Clean side drains, outfall, catch water, mitre drains and cut off drains to free flow conditions	m ³	LB-MB	4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
08-90-017	Demolish and dispose pipe culverts inlet and outlet structures as directed by the engineer	Meter	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
08-90-018	Provide sub subbase drainage as directed by the engineer	m ²	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
08-90-019	Excavate for, provide and install IBD of diameter 600 mm including single side slab	Meter	LB	600	660	630	780	690	720	780	570	840	540
08-90-020	Provide and install shallow IBD as directed by the engineer	Meter	LB	600	660	630	780	690	720	780	570	840	540
08-90-021	Excavate for, provide and install IBD of inner diameter 300mm including single side slab	Meter	LB-MB	600	660	630	780	690	720	780	570	840	540
08-90-022	Excavate for, provide and install IBD of diameter 450 mm without side slabs	Meter		600	660	630	780	690	720	780	570	840	540
08-90-023	Excavate for, provide and install IBD of diameter 450 mm with side slabs	Meter		600	660	630	780	690	720	780	570	840	540
08-90-024	Excavate for, provide and install IBD D-600 mm without side slabs	Meter		600	660	630	780	690	720	780	570	840	540
08-90-025	Excavate for, provide and install IBD of diameter-600 mm with side slabs	Meter		400	440	420	520	460	480	520	380	560	360
08-90-026	Collect from the Engineer, join and lay 2000mm inner diameter Armco Culvert	Meter	LB-MB	400	440	420	520	460	480	520	380	560	360
08-90-027	Collect from the Engineer, join and lay 1500mm inner diameter Armco Culvert	Meter	LB-MB	400	440	420	520	460	480	520	380	560	360
08-90-028	Excavate and remove existing 600mm culvert as directed by the Engineer	Meter		400	440	420	520	460	480	520	380	560	360
08-90-029	Excavate and remove existing 900mm culvert as directed by the Engineer	Meter		400	440	420	520	460	480	520	380	560	360
08-90-030	Collect Gabions from the Engineer and install in site as directed	No		6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
08-90-031	Provide, lay and joint 1200mm internal diameter Concrete	m ³	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
08-90-033	Material including support of trench sides, dewatering and carting away surplus material to spoil	m	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
08-90-034	Provide and lay 1200mm diameter pipes	m	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
08-90-035	Provide and lay ogee jointed concrete pipes	m ³	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
08-90-036	Provide& lay rip -rap embankment protection works where directed by the Engineer	m	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
08-90-037	Excavate and provide materials for construction of subsoil drains, backfill with approved hard material where instructed by the Engineer	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
08-90-038	Provide fabric to subsoil drains	m	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
08-90-039	Construct mitre drains where directed by the Engineer.	m	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
08-90-040	Removal of headwalls, wing walls and aprons	no.	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-90-041	Removal of drop inlets of all sizes	no.	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
08-90-042	Excavate for inlet, outfall, mitre and catch water drains in soft material	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
08-90-043	Excavate for cut-off drains in soft material	m ³	LB-MB	400	440	420	520	460	480	520	380	560	360
08-90-044	Material including support of trench sides, dewatering and carting away surplus material to spoil	m	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
Activity Group:- PASSAGE OF TRAFFIC													
Bill No. 9													
09-50-001	Construct and maintain 3m wide deviation	Km		300000	330000	315000	390000	345000	360000	390000	285000	420000	270000
09-50-002	Maintain existing public road	Km	MB	300000	330000	315000	390000	345000	360000	390000	285000	420000	270000
09-50-003	Construct and maintain 3m wide temporary vehicle bridge	Meter	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
09-50-004	Traffic control	KS	LB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
09-60-001	Allow for the passage of traffic through the works	Lump Sum	LB-MB	50000	55000	52500	65000	57500	60000	65000	47500	70000	45000
09-60-002	Construct, gravel, water, compact and maintain deviation roads in maximum lengths of 5km. Allow for minimum width of 6.5m, thickness of gravel 150mm with minimum CBR 20.	Km	LB-MB	300000	330000	315000	390000	345000	360000	390000	285000	420000	270000
09-60-003	Grade, shape, water and compact the existing road ahead of the works as necessary	Km	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
09-60-004	Provide signs and barriers	Km	LB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
09-60-005	Provide and compact approved gravel wearing course as instructed on existing road	m ³	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
09-60-006	Overhaul of gravel wearing	m ³	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
09-60-007	Provide access road to materials site as specified	Km	LB	300000	330000	315000	390000	345000	360000	390000	285000	420000	270000
09-60-008	Reinstatement of deviations	Lump Sum	LB	150000	165000	157500	195000	172500	180000	195000	142500	210000	135000
09-60-010	Construct diversion in maximum lengths of 5km sections as directed by the engineer including all signage, zoning, lighting and barriers.	Km	LB-MB	300000	330000	315000	390000	345000	360000	390000	285000	420000	270000
09-60-011	Provide, spread, water and compact gravel of minimum CBR 30% on deviations and maintenance of road as directed by the Engineer.	m ³	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
09-60-012	Maintain deviation by reshaping using grader reopening side drains and blocked culverts, re-gravelling as instructed, compaction and watering as required.	Km	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
09-60-013	Reinstatement of deviations to the condition prevailing prior to commencement of construction works.	Km	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
Activity Group:- GRADING AND GRAVELLING WORKS													
Bill No. 10													
10-50-001a	Heavy grading without watering or compaction instructed by the Engineer	m ²		6	5	6	7	6	7	7	5	8	5
10-50-001b	Heavy grading with watering and compaction instructed by the Engineer	m ²	MB	12	10	12	14	12	14	14	10	16	10
10-50-002a	Light grading without watering or compaction instructed by the Engineer	m ²		3	4	3	4	3	4	4	3	5	3
10-50-002b	Light grading with watering and compaction instructed by the Engineer	m ²	MB	5	6	8	12	10	12	10	8	12	8
10-50-004	Light Manual Reshaping (Grup edge, Fill gullies and reshape carriageway)	m ²	LB	100	110	105	130	115	120	130	95	140	90
10-60-001	Provide gravel wearing course- excavation, free haul, spread, water and compact gravel to specifications	m ³	MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
10-60-002	Haulage (Overhaul beyond 1.5 km)	m ³	MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
10-60-003	Gravel Patching	m ³	MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
10-70-001	Site clearance of borrow area	Ha	LB	250	275	263	325	287.5	300	325	238	350	225
10-70-002	Removal of overburden	m ³	LB	250	275	263	325	287.5	300	325	238	350	225
10-70-003	Restoration of quarries and borrow pits	KS	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
10-70-004	Light Manual Reshaping with watering and compaction	m ²		150	165	158	195	172.5	180	195	143	210	135
10-70-005	Heavy Manual Reshaping with watering and compaction	m ²		150	165	158	195	172.5	180	195	143	210	135
10-70-006	Heavy Manual Reshaping without watering and compaction	m ²		150	165	158	195	172.5	180	195	143	210	135
10-70-007	Light Manual Reshaping without watering and compaction	m ²		150	165	158	195	172.5	180	195	143	210	135
10-70-008	Collect gravel from an identified stockpile and transport to site, spread, water and compact to 98% MDD as directed by the Engineer	M		20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
Activity Group:- PAVED ROADS - SHOULDER MAINTENANCE AND REPAIRS													
Bill No. 11													
11-50-001	Shoulder grading	m ²		50	55	53	65	57.5	60	65	48	70	45
11-50-002	Prepare surface of existing shoulders, accesses and busbays, including benching where necessary, water process and compact in accordance with the specification and as directed by the engineer to receive gravel	m ²	MB	250	275	263	325	287.5	300	325	238	350	225

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
11-50-003	Provide, place and compact natural gravel to shoulders access and bus bays	m ³	MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
11-50-004	Weeding shoulders/slopes	m ²	LB	250	275	263	325	287.5	300	325	238	350	225
11-60-001	Cut benches on shoulders, widening and bus bays where directed by the Engineer	m ²	LB-MB	400	440	420	520	460	480	520	380	560	360
11-60-002	Provide, place and compact class 20/20 concrete on shoulders inclusive of A142 fabric mesh as instructed by the engineer	m ³	LB-MB	17500	19250	18375	22750	20125	21000	22750	16625	24500	15750
11-60-003	Grade, shape water and compact existing shoulders, accesses and bus bays where directed by the Engineer.	m ²	LB-MB	150	165	158	195	172.5	180	195	143	210	135
11-60-004	Benching on shoulders	m ³	LB-MB	150	165	158	195	172.5	180	195	143	210	135
11-60-005	Provide, lay water, process and compact approved material on shoulders in accordance with the specifications and as directed by the Engineer	m ³	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
11-60-006	Provide, lay and compact 150mm thick cement stabilized gravel to shoulders and carriageway in accordance with the specification	m ²	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
11-60-007	Scarify the existing pavement layers(including surfacing) and add additional subbase gravel(measured separately) to form the subbase layer	m ³	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
11-60-008	Provide and place 50mm thick class 15/20 concrete blinding to structures	m ³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
11-60-009	Provide Formwork to provide F1 finish	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
11-60-010	Provide Formwork to provide F2 finish	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
Activity Group:- NATURAL MATERIAL BASES AND SUBBASE													
Bill No. 12													
12-50-001	Provide, lay and compact Hand packed stone material including fillings voids with stone dust as directed by the Engineer.	m ³		2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
12-50-002	Provide, place, spread and compact natural gravel for subbase	m ³	MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
12-50-003	Provide, place, spread and compact natural gravel for base	m ³	MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
12-50-004	Provide gravel for topping up,mixed with recovered GCS in 12.03 water and compact to form a composite subbase layer	m ³	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
12-50-005	Provide, lay and compact to 95% AASHTO 175mm thick gravel in subbase and shoulders	m ³	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
12-50-006	Provide, lay and compact to 95% AASHTO 150mm thick gravel in base and shoulders	m ³	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
12-50-007	Scarify the existing pavement layers(including surfacing) and add additional subbase gravel(measured separately) to form the subbase layer	m ³	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
12-60-001	Provide, place, spread and compact Base Repair - Hand Packed Stone	m ³	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
12-60-002	Provide, place, spread and compact Base Repair - Stabilized Gravel	m ³	MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
12-60-003	Provide, place, spread and compact Base Repair - Neat Gravel	m ³	MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
12-70-001	In situ process of existing pavement layers (including surfacing) as subbase with additional subbase gravel (measured separately) to specified density and (150mm) extended to the shoulders	m ³	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
12-70-002	Excavation and spoiling of the existing bituminous layers to any distance where directed by the Engineer	m ³	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
12-70-003	Scarify the existing pavement layer and compact as specified and directed by the engineer	m ³	MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
12-70-004	Overhaul material in excess of free haul	m ³	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
12-70-005	Provide, mix place and compact composite emulsion treated base -all-inclusive by labour	m ³		2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
Activity Group:- GRADED CRUSHED STONE SUBBASE AND BASE													
Bill No. 13													
13-50-001	Provide, lay and compact Graded Crushed Stone for Subbase	m ³		10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
13-60-001	Provide, lay and compact Graded Crushed Stone for Base	m ³	MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
13-60-002	Prepare existing surfaces, trim, level, water and compact to receive new GCS	m ³	LB-MB	300	330	315	390	345	360	390	285	420	270
13-60-003	Provide GCS material, spread, water and compact to 98% MDD for repair and reconstruction	m ³	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
13-60-004	Scarify the existing sub-grade or pavement, add new material of subgrade quality	m ³	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
13-60-005	Provide, lay and compact screening layer of 75mm soft stone or quarry waste compacted to 98% MDD Min.	m ³	LB-MB	1800	1980	1890	2340	2070	2160	2340	1710	2520	1620
Activity Group:- CEMENT AND LIME TREATED SUBGRADE,SUBBASE AND BASE													
Bill No. 14													
14-50-001	Provide, transport, spread, cement Stabilizer on natural material	Tonne		30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
14-50-002	Provide, transport, spread, mix and curing lime on natural material	Tonne	MB	28000	30800	29400	36400	32200	33600	36400	26600	39200	25200

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
14-50-003	Mixing in cement/lime stabilizer into natural gravel	m ³	MB	150	165	158	195	172.5	180	195	143	210	135
14-50-004	Curing and protection of treated layers	m ²	LB	50	55	53	65	57.5	60	65	48	70	45
14-50-005	Provide, transport, spread, cement Stabilize on GCS material	Tonne		30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
14-50-006	Provide, transport, spread, Lime Stabilizer on natural material	Tonne		28000	30800	29400	36400	32200	33600	36400	26600	39200	25200
14-50-007	Mixing in cement / lime stabilizer in to GCS	m ³		150	165	158	195	172.5	180	195	143	210	135
14-50-008	Allow for the protection and curing of the treated material as specified	m ²		50	55	53	65	57.5	60	65	48	70	45
14-50-009	Curing of cement treated gravel shoulders and gravel subbase	m ²	LB-MB	50	55	53	65	57.5	60	65	48	70	45
14-50-010	Curing of lime treated gravel shoulders and gravel subbase	m ²		50	55	53	65	57.5	60	65	48	70	45
14-50-011	Curing of treated gravel shoulders and Gravel base	m ²		50	55	53	65	57.5	60	65	48	70	45
14-50-013	Mix in cement stabilizer with natural material subbase/shoulder	m ³		150	165	158	195	172.5	180	195	143	210	135
14-50-014	Mix in lime stabilizer with natural material subbase/shoulder	m ³		150	165	158	195	172.5	180	195	143	210	135
14-50-015	Provide and spread 30-50kg/m3 cement to improve 175mm thick natural material subbase and shoulder	Tonne		40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
14-50-016	Provide and spread 30-50kg/m3 lime to improve 175mm thick natural material subbase and shoulder	Tonne		40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
14-50-017	Provide and spread cement stabilizer at 50-80kg/m3 to natural material base and shoulder	Tonne		45000	49500	47250	58500	51750	54000	58500	42750	63000	40500
14-50-018	Provide cement as stabilizing agent for the gravel and GCS base and subbase	Tonne		30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
14-50-019	Provide, transport to site and spread cement (1%) for natural gravel to form the subbase as specified or directed by the Engineer	Tonne	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
14-50-020	Provide, transport to site and spread cement (3%) for natural gravel for base as specified or as directed by the Engineer.	Tonne	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
Activity Group:- BITUMINOUS SURFACE TREATMENT AND SURFACE DRESSING													
Bill No. 15													
15-50-001	Prepare surface to receive treatment	m ²	LB-MB	150	165	158	195	172.5	180	195	143	210	135
15-50-002	Prime coat	Length	MB	250	275	263	325	287.5	300	325	238	350	225
15-50-003	Tack coat	Length	MB	250	275	263	325	287.5	300	325	238	350	225
15-60-001	Seal coat	Length	MB	250	275	263	325	287.5	300	325	238	350	225
15-60-002	Provide, spread and roll 0/6 mm precoated chipping	m ³	MB	12000	13200	12600	15600	13800	14400	15600	11400	16800	10800
15-60-003	Provide, spread and roll 6/10 mm precoated chipping	m ³	MB	12000	13200	12600	15600	13800	14400	15600	11400	16800	10800

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
15-60-004	Provide, spread and roll 10/14 mm precoated chipping	m ³	MB	12000	13200	12600	15600	13800	14400	15600	11400	16800	10800
15-60-005	Provide, spread and roll 14/20 mm precoated chipping	m ³	MB	12000	13200	12600	15600	13800	14400	15600	11400	16800	10800
15-60-006	Surface dressing - Single Seal	m ²	MB	12000	13200	12600	15600	13800	14400	15600	11400	16800	10800
15-60-007	Surface dressing Double Seal	m ²	MB	12000	13200	12600	15600	13800	14400	15600	11400	16800	10800
15-70-001	Seal coat(Cold)	Length	MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
15-70-002	Aggregate(Fine)	m ³	MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
15-80-001	Seal coat(Hot)	Length	MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
15-80-002	Aggregate(Course)	m ³	MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
15-80-003	Provide, transport and spread blinding material in accordance to Clause 1502B of the standard specifications at a spread rate of 210m ² /m ³	m ³	LB-MB	250	275	263	325	287.5	300	325	238	350	225
15-80-004	Provide, heat and spray 80/100 cut-back bitumen as a seal on carriageway at a rate of 1.0-1.4 Litres/m2.	Length	LB-MB	250	275	263	325	287.5	300	325	238	350	225
15-80-005	Provide, heat and spray 80/100 pen. Grade bitumen cutback with kerosene or diesel as second seal on carriageway at a rate of 0.8 -1.01 Ltr/M2	Litre	LB-MB	250	275	263	325	287.5	300	325	238	350	225
15-80-006	Provide, transport,lay and roll 10/14 mm precoated chippingwith MC 30 as a single seal on AC type 1 on carriageway at a rate of 80 -120 M2/M3 or as directed by the Engineer.	m ³	LB-MB	250	275	263	325	287.5	300	325	238	350	225
15-80-007	Emulsion slurry seal	m ²	MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
15-80-008	Otta seal Single seal	m ²	MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
15-80-009	Otta seal Double seal	m ²	MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
15-80-010	Provide and Spray MC 30 cut-back bitumen as prime coat to carriageway, shoulders, busbays and junctions at rate 0.8-1.2 lts/m2 as prime coat	Length	LB-MB	250	275	263	325	287.5	300	325	238	350	225
15-80-011	Provide, heat and spray 80/100 pen grade bitumen for 1st seal on carriageway, on shoulders, bus bays and junction at rate of 0.9-1.2 lts/m2	Length	LB-MB	250	275	263	325	287.5	300	325	238	350	225
15-80-012	Provide, heat and spray 80/100 pen grade bitumen for 2nd seal on carriageway, on shoulders, busbays and junction at rate of 0.8-1.0 lts/m2	Length	LB-MB	250	275	263	325	287.5	300	325	238	350	225
15-80-013	Provide kerosene fuel as cutter for 80/100 Penetration grade bitumen binder in accordance with special specifications	Length	MB	250	275	263	325	287.5	300	325	238	350	225
15-80-014	Spray MC 70 cut-back bitumen as prime coat to carriageway, shoulders, busbays and junctions at 0.8-1.2 lts/m2	Length	LB-MB	250	275	263	325	287.5	300	325	238	350	225
15-80-015	Provide and spray K-160 as tack coat at a rate of 0.8-1.0 L/sq metre as directed by the Engineer	Length		250	275	263	325	287.5	300	325	238	350	225
15-80-016	Crack Sealing	m	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
15-80-017	Spot Sealing (fine cracks)	m ²	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
15-80-018	Apply a light prime diluted A4 Anionic Emulsion to the composite Emulsion tread Base (at a spray rate) in case it will be exposed to traffic for a prolonged period as directed by the engineer	Ltr	LB-MB	250	275	263	325	287.5	300	325	238	350	225
Activity Group:- BITUMINOUS MIXES													
Bill No. 16													
16-50-001	Pothole Patching - hot mix	m ³	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-50-002	Pothole Patching - cold mix	m ³	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-50-003	Road Edge repairs	m ²	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-50-004	Crack Sealing	m	LB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
16-50-005	Spot Sealing (fine cracks)	m ²	LB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
16-50-006	Provide, transport, lay and compact Dense Bitumen Macadam to a compacted thickness of 80mm	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-50-007	Excavate, trim and cart to spoil, compact in repair to potholes and failed pavement areas on c/way and its edges.	m ³	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
16-50-008	Provide, lay and compact AC Type I for repair to potholes and edge repair	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-50-009	Provide, lay and compact DBM of 80mm compacted thickness with nominal bitumen	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
	content of 4.5% by weight of total mix to the carriageway			35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-50-010	Provide, lay and compact 50mm AC Type I as overlay layer for the whole section as a wearing course	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-50-011	Provide, place and compact hot rolled Asphalt Concrete Type I to Pothole repairs, 25mm regulation layer on carriageway, bus bays, accesses, bumps and rumble strips as directed by the Engineer.	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-50-012	Provide, lay and compact 50mm AC Type 1	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-50-013	Provide, lay and compact 35mm AC Type II	m ³	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
16-50-014	Provide, lay and compact of 35mm Asphalt Concrete type 1 wearing course to carriageway at bitumen content of 5.5-7.0% by weight of total mix	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-60-001	Asphaltic concrete (AC) for surfacing	m ³	MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-60-002	Cold asphalt mix for surfacing	m ³	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-70-001	Base Repair - Dense Bitumen Macadam (DBM)	m ³	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-70-002	Dense bitumen macadam (DBM) for base	m ³	MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-70-003	Provide mix, place and compact cold mix Asphalt - all-inclusive by labour	m ²		35000	38500	36750	45500	40250	42000	45500	33250	49000	31500

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
16-80-001	Provide, lay and roll asphalt concrete type 1 (bitumen content 5-6% by weight) as directed by the Engineer	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-80-002	Provide, lay and roll Dense Bitumen Macadam (80mm thick) to carriageway, extending to the shoulders	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-80-003	Provide and spray K-160 as tack coat at a rate of 0.8-1.0 L/sq metre as directed by the Engineer	L	LB-MB	250	275	263	325	287.5	300	325	238	350	225
16-80-004	Clearing and cutting of potholes and failed areas	m ³	LB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
16-80-005	Provide regulation with asphaltic concrete 25mm minimum thickness overlay	m ³	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-80-006	Provide regulation with asphaltic concrete 40mm minimum thickness overlay	m ³	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-80-007	Provide place and compact asphaltic concrete type 1 for bumps and rumble strips as directed by the Engineer	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
16-80--008	Provide place and compact asphaltic concrete type 1 to repair areas and for regulation to carriageway as directed by the Engineer	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
Activity Group:- CONCRETE WORKS (Major Structures)													
Bill No. 17													
17-50-001	Bridge Deck Replacement-Concrete	m ³		20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
17-50-002	Bridge Abutment repair - concrete	m ³	LB	20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
17-50-003	Bridge Abutment repair - masonry	m ³	LB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
17-50-004	Drift repairs - concrete	m ³	LB	20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
17-50-005	As item 17-50-004 but sloped.	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-006	As item 17-50-004 but for horizontal	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-007	As item 17-50-004 but for slanted	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-008	Mild steel reinforcing bars, diameter not exceeding 16mm.	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-009	Provide and fix heavy duty p.v.c. pipes 75mm diameter x 325mm long in weep holes of culvert and wing walls.	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-010	Provide and place class 25/20 concrete for box culverts.	m ³	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
17-50-011	Provide and place class 25/20 concrete for foundations, abutments and wing walls at bridges.	m ³	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-012	Provide Unformed surface finish UF2(Formwork for formed surfaces, Formwork rates to include for 25x25mm chamfer to all exposed edges)	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-013	Provide Vertical formwork to achieve class F1 finish	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-014	Provide Vertical formwork to achieve class F3finish	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-015	Providing, cutting, shaping and placing high yield, high bond strength bars diameter equal or less than 16 mm.	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
17-50-016	Providing, cutting, shaping and placing high yield, high bond strength bars diameter greater than 16 mm.	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-017	Providing, cutting, shaping and placing mild steel round bars diameter equal or less than 16 mm.	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-018	Supply, erect and dismantle formwork for concrete, class F3 finish. The rates shall cover inclined formwork of all slopes and angles.	m ²	LB-MB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
17-50-019	Provide Formwork to provide F1 finish	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-020	Provide Formwork to provide F2 finish	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-021	Provide and apply MC 30 one coat on concrete surface which remain in contact with the earth fill	m ²	LB-MB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
17-50-022	Formwork Class F1 Finish	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-023	Formwork Class F3 Finish	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-024	Provide and place 50mm thick class 15/20 concrete blinding to structures	m ³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
17-50-025	Provide, place and compact class 25/20 concrete	m ³	LB-MB	28000	30800	29400	36400	32200	33600	36400	26600	39200	25200
17-50-026	As item 17-50-025 class 15/20 concrete for blinding	m ³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
17-50-027	Provide, erect and afterwards dismantle & remove	Ks	LB-MB	300000	330000	315000	390000	345000	360000	390000	285000	420000	270000
17-50-028	Vertical formwork to achieve class F1 finish	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-029	As item 17-50-028 but horizontal	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-030	Vertical formwork to achieve class F3 finish	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-031	As item 17-50-030 but horizontal	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-032	Provide, bend and fix into position	Ks	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-033	High yield steel bars to BS 4461 of size 16mm & above	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-034	High yield steel bars to BS 4461 of size 12mm & below	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-035	Provide, place and compact class 25/20 concrete	m ³	LB-MB	28000	30800	29400	36400	32200	33600	36400	26600	39200	25200
17-50-036	As item 17-50-037 class 15/20 concrete for blinding	m ³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
17-50-037	Provide, erect and afterwards dismantle & remove	Ks	LB-MB	300000	330000	315000	390000	345000	360000	390000	285000	420000	270000
17-50-038	As item 17-50-047 class 15/20 concrete for blinding	m ³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
17-50-039	Provide, place and compact blinding concrete class 15/20 of any thickness to foundations of piers, columns, wing wall and abutments	m ³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
17-50-040	Provide, place and compact concrete class 30(20) to foundation bases to piers, columns, wingwall and abutments	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
17-50-041	Provide, place and compact concrete class 30(20) to columns, wingwalls and abutment wall	m ³	LB-MB		0	0	0	0	0	0	0	0	0
17-50-042	Provide, place and compact concrete class 30(20) to main beams	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
17-50-043	Provide, place and compact concrete class 30(20) to cross beams	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
17-50-044	Provide, place and compact concrete class 30(20) to deck slab and kerb beams	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
17-50-045	Provide, place and compact concrete class 30(20) to approach slab	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
17-50-046	Provide, erect and afterwards dismantle & remove	Ks	LB-MB	300000	330000	315000	390000	345000	360000	390000	285000	420000	270000
17-50-047	Provide class F3 finish to footings of wingwall, pier, columns and abutments	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-048	Provide class F2 finish to vertical sides of wingwall, pier, columns and abutments	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-049	Provide class F3 finish to soffits of deck	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-050	As item 17-50-067 but to sides of kerb beams and approach slab	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-051	Provide, bend and fix into position	Ks	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-052	High yield steel bars to BS 4461 of diameter equal to or less than 16mm	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-053	As item 17-50-052 but of diameter greater than 16mm	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-054	Provide all 1.6m high x 25mm thick x 12m long styropor and 50mm deep x 25 mm thick x 24 m long bitumen based expandite materials for and form expansion joint	No.	LB-MB	20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
17-50-055	Heavy duty UPVC pipes 100mm dia and 700mm long in weep holes	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-056	As in 17-50-055 above but 500mm long in wing walls	No.	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
17-50-057	As in 17-50-055 above but 750mm long in bridge deck	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-058	Heavy duty UPVC pipes 100mm dia and 700mm long in weep holes	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-059	As in 17-50-058 above but 500mm long in wing walls	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-060	As in 17-50-058 above but 750mm long in bridge deck	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-061	Provide place and compact concrete class 15/20 for blinding	m ³	MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
17-50-062	Provide place and compact concrete class 20/25 concrete	m ³	MB	28000	30800	29400	36400	32200	33600	36400	26600	39200	25200
17-50-063	Vertical framework class F2 finish	m ²	MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-064	Horizontal framework class F2 finish	m ²	LB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-065	Provide, cut bend and fix into position high yield reinforcement bar to BS 4461 as directed and as shown on the drawing	Tonne	LB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
17-50-066	Provide and fix heavy duty p.v.c. pipes 75mm diameter x 325mm long in weep holes of culvert and wing walls.	No.	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
17-50-067	Provide and place class 25/20 concrete for foundations, abutments and wingwalls at bridges.	m³	LB-MB	28000	30800	29400	36400	32200	33600	36400	26600	39200	25200
17-50-068	Providing, cutting, shaping and placing high yield, high bond strength bars diameter equal or less than 16 mm..	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-069	Providing, cutting, shaping and placing mild steel round bars diameter equal or less than 16 mm..	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-070	Providing, cutting, shaping and placing mild steel round bars diameter greater than 16 mm.	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-071	Supply, erect and dismantle formwork for concrete, class F3 finish. The rates shall cover inclined formwork of all slopes and angles.	m²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-072	Drift Construction by Concrete	m³	MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-073	Box culvert Construction by contract	No.	MB	40000000	44000000	42000000	52000000	46000000	48000000	52000000	38000000	56000000	36000000
17-50-074	Bridge Construction by contract	No.	MB	50000000	55000000	52500000	65000000	57500000	60000000	65000000	47500000	70000000	45000000
17-50-075	Provide and place 50mm thick class 15/20 concrete binding to structures	m³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
17-50-076	Provide and place class 25/20 concrete for retaining walls and other structures	m³	LB-MB	28000	30800	29400	36400	32200	33600	36400	26600	39200	25200
17-50-077	Provide and place class 30/20 concrete for bridge decks, beams and piers	m³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
17-50-078	Provide, cut, bend and fix steel reinforcement of diameter equal to or less than 16mm dia per the drawing or as instructed by the Engineer	Tonne	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
17-50-079	Provide, cut, bend and fix steel reinforcement of diameter greater than 16mm dia per the drawing or as instructed by the Engineer	Tonne	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
17-50-080	Formwork for formed surfaces finished	m²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-081	Provide and place class 30/20 concrete for pavement carriageway as directed by the engineer	m³	MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
17-50-082	Provide materials and construct masonry retaining wall 200 mm thick complete with piers at a spacing of 3m as specified and directed by the Engineer	m²	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
17-50-083	Provide materials and plaster masonry wall with mortar of at least 1.3 (Cement:Sand ratio) minimum 25mm thick or as directed by the Engineer	m²	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
17-50-084	Provide and fix coping to masonry retaining wall as directed by the Engineer	m	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
17-50-085	Vertical framework class F1 finish	m ²		1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-086	Horizontal framework class F1 finish	m ²		1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-087	Vertical framework class F3 finish	m ²		1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-088	Horizontal framework class F3 finish	m ²		1000	1100	1050	1300	1150	1200	1300	950	1400	900
17-50-089	Drill into existing abutment holes for dowels. Fix in dowels and fill in with 1:1 sand/cement mortar as shown on the drawings	No.	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
17-50-090	Allow for protection of structures pursuant to section 708 of the standard specifications	LS		10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
17-50-091	Provide Bend and fix into positions high yield steel bars to BS4461 the following steel reinforcement as directed and shown below	m		250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-092	Reinforcement bars of high yield to BS 4461 size 12mm and below	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-093	Reinforcement bars of high yield to BS 4461 size 12mm and above	Tonne	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
17-50-094	Formworks to edges of slabs (Less than 300 mm high)	m ²		1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
17-50-095	Mesh reinforcement - A393 mesh	m ²		2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
17-50-096	Mesh reinforcement - A112 mesh	m ²		750	825	788	975	862.5	900	975	713	1050	675
17-50-097	Unformed surface finish - class 15/20	m ³		14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
17-50-098	Formworks for formed surface finishes. (Rate to include for 25x25 chamfer to all exposed areas) b) F1 finish - Sloping	m ²		1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
17-50-099	Formworks for formed surface finishes. (Rate to include for 25x25 chamfer to all exposed areas) e) F3 - Sloping	m ²		1000	1100	1050	1300	1150	1200	1300	950	1400	900
Activity Group:- STEEL STRUCTURES													
Bill No. 19													
19-50-001	Provide, fabricate and fix 100x100x6 mm square hollow sections top and bottom member to truss girder	Meter		50000	55000	52500	65000	57500	60000	65000	47500	70000	45000
19-50-002	Provide, fabricate and fix 60x40x4 mm L sections	Kg	LB-MB	300	330	315	390	345	360	390	285	420	270
19-50-003	Provide, fabricate and fix 50x50x4 mm SHS	Meter	LB-MB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
19-50-004	Provide, fabricate and fix 75x75x6 L sections	Kg	LB-MB	300	330	315	390	345	360	390	285	420	270
19-50-005	Provide, fabricate and fix 50x50x6 mm L sections	Kg	LB-MB	300	330	315	390	345	360	390	285	420	270
19-50-006	Provide, fabricate and fix 60x40x3 mm RHS	Meter	LB-MB	60000	66000	63000	78000	69000	72000	78000	57000	84000	54000
19-50-007	Provide, fabricate and fix 100x50x4 mm RHS sections including welding and bolting at 1500 mm c/c	Meter	LB-MB	60000	66000	63000	78000	69000	72000	78000	57000	84000	54000
19-50-008	Provide, fabricate and fix 50x50x4 mm SHS sections including welding and bolting 500 mm c/c	Meter	LB-MB	75000	82500	78750	97500	86250	90000	97500	71250	105000	67500

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
19-50-009	Provide, fabricate and fix 203x203x46 km/m UC sections	Kg	LB-MB	300	330	315	390	345	360	390	285	420	270
19-50-010	Provide, fabricate and fix holding down bolts 20mm diameter including head, nuts and washer grade 4.6 and 250 mm long embedded in concrete	No.	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
19-50-011	Provide, fabricate and fix 500x50x18 mm c/w boltholes	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
19-50-012	Provide, fabricate and fix mild steel chequered plates of 6 mm thick for decking including 2 No 10 mm drain holes at 1200 mm centres	m²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
19-50-013	Prepare and apply one primer coat and two coats of gloss paint to general surfaces of metal as per clause 19.11 on paint works and as directed by the Engineer	m²	LB-MB	1450	1595	1523	1885	1667.5	1740	1885	1378	2030	1305
19-50-014	Allow for welding and bolting works	Lump Sum	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
19-50-015	Dismantle existing footbridge, transport it to the alternative site and erect as directed by the Engineer	Lump Sum	LB-MB	1000000	1100000	1050000	1300000	1150000	1200000	1300000	950000	1400000	900000
19-50-016	Provide and install 32 mm dia x 1000 mm long, grade 8.8 threaded end holding down bolts.	No.	LB-MB	4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
19-50-017	Import "Uni-bridge box girder" type steel beams 34.2m long with cross beams etc as per Addendum no.1	LS	LB-MB	500000	550000	525000	650000	575000	600000	650000	475000	700000	450000
Activity Group:- ROAD FURNITURE REPAIR AND MAINTENANCE													
Bill No. 20													
20-40-001	Supply, erect vertically to a depth of 1.5M below ground level, test and commission new 10 mtrs galvanized poles (single arms) complete with 160 watts LED fittings plus all other electrical accessories and appliances	No.	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
20-40-002	Supply, erect vertically to a depth of 1.5M below ground level, test and commission new 15 mtrs galvanized poles complete with 4x250w/280w LED fittings plus all other electrical accessories and appliances	No.	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
20-40-003	Repair of damaged 20 mtrs galvanized high mast pole (to be complete with all 6x280 watts LED fittings plus all the other electrical accessories and appliances)	No.	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
20-40-004	Supply, install, test and commission 250/280 watts LED fittings on footbridges plus all other electrical accessories and appliances	Pcs	LB-MB	200000	220000	210000	260000	230000	240000	260000	190000	280000	180000
20-40-005	Supply, install, test and commission street light fittings to 15 mtrs pole and 20 mtrs high masts complete with 4x250w/280w and 6x250w/280w LED fittings respectively plus all the other electrical accessories and appliances	Pcs	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
20-40-006	Supply circular continuously tapering, fully galvanized street light poles with suitable decorative double arm bracket to achieve mounting height of 12m from road surface. The pole shall have arrangement of concealed junction box with 2no. 6A SPMCB	Pcs	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
20-40-007	Supply of circular continuously tapering, fully galvanized street light poles with suitable decorative single arm bracket to achieve mounting height of 12m from road surface. The pole shall have arrangement of concealed junction box with 1 No. 6A SPMCB	Pcs	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
20-40-008	Erection of the street lighting pole including casting of suitable civil foundation as per technical specifications	NO.	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
20-40-009	Supply and install 16mmsq	M	LB-MB	3000	3300	3150	3900	3450	3600	3900	2850	4200	2700
20-40-010	Supply, install, test and commission Control Meter Box complete with all required electrical accessories and appliances	No.	LB-MB	45000	49500	47250	58500	51750	54000	58500	42750	63000	40500
20-40-011	Supply, erection, testing and commissioning of street light fixture suitable for 400 watts tubular lamp complete with bulb and all other electrical accessories as per technical specifications	Pcs	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
20-40-012	Supply, install, test and commission 250 watts flood light sodium fittings for tunnel lighting complete with Bulb as Thorn plus all other electrical accessories.	Pcs	LB-MB	18000	19800	18900	23400	20700	21600	23400	17100	25200	16200
20-40-013	Repair of damaged 35 mtrs galvanized High mast poles (to be complete with all 9x1000 watts flood light sodium fittings with Bulb as Thorn plus all other electrical accessories).	No.	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
20-40-014	Repair of damaged Control Meter Box, testing and commissioning, complete with all required electrical fittings and accessories	Pcs	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
20-40-015	Prune/Trim overgrown tree branches/ leaves obstructing luminaries in liaison with NCG and cart to spoil trimmed / cut branches and leaves	Km	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
20-50-001	Road reserve boundary posts	No.	LB	3000	3300	3150	3900	3450	3600	3900	2850	4200	2700
20-50-002	Installation of Fencing and gates	Meter	LB	45000	49500	47250	58500	51750	54000	58500	42750	63000	40500
20-50-003	Repair/ replace fence	Meter	LB	20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
20-50-004	Edge marker posts	No.	LB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
20-50-005	Permanent road signs	No.	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-50-006	Roads markings - Centreline as directed by the Engineer(Thermoplastic)	Km	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-50-007	Roads markings - Edge Marking a directed by the Engineer(Thermoplastic)	Km	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
20-50-008	Guard Rail Repair	Meter	LB	4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
20-50-009	Guard Rail Replacement	Meter	LB	4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
20-50-010	Guardrail installation	Meter	LB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
20-50-011	Handrail Repair/ Installation	Meter	LB	4000	4400	4200	5200	4600	4800	5200	3800	5600	3600
20-50-012	Kerbs	Meter	LB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-013	Kilometer marker posts	No.	LB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
20-50-014	Rumble strips	m ³	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
20-50-015	Speed bump construction with Asphalt concrete	m ³	MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
20-50-016	Speed bump construction with concrete	m ³	MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
20-50-017	Concrete bollards	No.	MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
20-50-018	Trees	No.	LB	500	550	525	650	575	600	650	475	700	450
20-50-019	Reflective Stud Installation	No.	LB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
20-50-020	Traffic signs maintenance	No.	LB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
20-50-021	Steel bollards	No.	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
20-50-022	Timber bollards	No.	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
20-50-023	Provide and erect edge marker posts as directed by the engineer.	No.	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
20-50-024	Provide, lay and joint 250mm thick precast concrete quadrant or radius less than 1.0m	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-025	Provide and place 150mmx1500mmx600mm precast concrete slabs reinforced with 4No.Y12 and 8No.Y10 for walkway across open drains as instructed by the engineer	No.	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
20-50-026	Concrete posts for guardrail	No	LB-MB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
20-50-027	EO Item 20.16 for Contractor's overhead and profit	%	LB-MB	20	22	21	26	23	24	26	19	28	18
20-50-028	Provide, lay and joint straight kerbs	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-029	Provide, lay and joint kerbs, any radius	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-030	Provide, lay and joint kerbs, 125mm x 100mm Channels	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-031	Provide and erect Verge Master MK 111 or equivalent plastic edge marker posts as directed by the Engineer	No.	LB-MB	6500	7150	6825	8450	7475	7800	8450	6175	9100	5850
20-50-032	Provide and erect chevrons in every bridge location as directed by the Engineer	No.	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
20-50-033	Provide and Install Guard rails complete with posts and _swarflex_ ART 3240 guardrail reflectors every 4m as per drawings and as directed by the Engineer	Meter	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
20-50-034	Provide and erect KeRRA awareness billboards of size > 5 m2 at locations to be directed by the Engineer	No.	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
20-50-035	As Item 20.08 but 0.5m wide but pedestrian	m ²	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
	crossing			2000	2200	2100	2600	2300	2400	2600	1900	2800	1800

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
20-50-036	Paint 0.2m wide yellow lines on the edge marking as directed by the Engineer.	m ²	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-50-037	Provide, lay and joint kerbs	No	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-038	Provide, lay and joint kerbs - Straight	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-039	Provide, lay and joint kerbs - radius 5 - 1 m	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-040	Provide, lay and joint kerbs - Flush kerbs	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-041	Install Guard rails as directed by the Engineer	m	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-042	Provide and erect RHS mild steel (100*100*4mm) posts concrete posts for guaredrails complete with spacers at 3810mm intervals or as diercted by the engineer.	no.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-50-043	provide, lay and joint kerbs as directed by the Engineer(a) Straight	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-044	provide, lay and joint kerbs as directed by the Engineer (b) Any Radius	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-045	Provide and erect standard informatory signs 141 Bus Stop	No.	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-50-046	Provide and erect environmental awareness billboards of size>5m2 at urban centers	No.	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
20-50-047	Set out, provide all materials and plant and construct concrete bus bays as shown in drawings	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-50-048	Provide and erect concrete posts for guardrails complete with spacers or as directed by the Engineer	No	LB-MB	85000	93500	89250	110500	97750	102000	110500	80750	119000	76500
20-50-049	Provide and erect informatory signs 784× 300 mm	No	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-50-050	Provide and erect hazard marking signs 900*450 mm(less than 1m2)	No.	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-50-051	As in item 20-50-050 but kerbs to radii 5m - 1m	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-052	As in item 20-50-050 but kerbs to radii less than 1m	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-053	Provide materials and construct speed bumps	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-054	As 20.02 but for flush kerbs 100 x 125mm	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-055	Provide, lay and joint kerbs as directed by the Engineer	No	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
20-50-056	Provide, lay and joint Straight	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-057	Provide, lay and any Radius	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-50-058	Provide and place 3.0m x 1.5m x 150mm thick reinforced concrete class 25/20 pedestrian slabs over open drains as directed as directed by the engineer.	No	LB-MB	28000	30800	29400	36400	32200	33600	36400	26600	39200	25200
20-50-059	Provide, lay and joint 250mm thick precast concrete quadrant or radius less than 1.0m	No.	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
20-50-060	Provide and erect service duct marker posts	No.	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
20-50-061	Provide and install service ducts	No.	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
20-50-062	(a) Warning Sign	No.	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-50-063	(b) Priority Prohibitory and mandatory signs	No.	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-50-064	(c) Standard Informatory signs area	No.	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-50-065	Provide lay and join precast concrete channels	Meter	LB-MB	800	880	840	1040	920	960	1040	760	1120	720
20-50-066	Provide and erect asphalt concrete rumble strips on the shoulder as directed by the Engineer	m³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
20-50-067	Provide, lay and joint 250mm thick precast concrete quandrant or radius less than 1.0m	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-60-001	Street lights repairs	No.	LB	800	880	840	1040	920	960	1040	760	1120	720
20-60-002	Micro tunneling for a 150mm dia. PVC duct.	Meter	LB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-60-003	Supply & erection of poles - 3.8m	No.	MB	3500	3850	3675	4550	4025	4200	4550	3325	4900	3150
20-60-004	Supply & erection of poles - 4.4m	No.	MB	3500	3850	3675	4550	4025	4200	4550	3325	4900	3150
20-60-005	Supply & Installation of pole covers	No.	LB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
20-60-006	Supply & Installation of pole connectors	No.	LB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
20-60-007	Supply & Installation of pole caps	No.	LB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
20-60-008	Supply & laying Cables- 7x1.5mm2	Meter	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-60-009	Supply & laying Cables- 3x1.5mm2	Meter	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-60-010	Supply & laying Cables-12x1.5mm2	Meter	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-60-011	Supply & Installation of T.S. Head-200mm	No.	LB	4800	5280	5040	6240	5520	5760	6240	4560	6720	4320
20-60-012	Supply & Installation of T.S. Head-300mm	No.	LB	4800	5280	5040	6240	5520	5760	6240	4560	6720	4320
20-60-013	Supply & Installation of P.S. Head-200mm	No.	LB	4800	5280	5040	6240	5520	5760	6240	4560	6720	4320
20-60-014	Supply & Installation of P.S. Head-300mm	No.	LB	4800	5280	5040	6240	5520	5760	6240	4560	6720	4320
20-60-015	Cable Termination	No.	LB	4800	5280	5040	6240	5520	5760	6240	4560	6720	4320
20-60-016	Controller Installation	No.	LB	4800	5280	5040	6240	5520	5760	6240	4560	6720	4320
20-60-017	Supply and delivery of 7.6m column	No.	LB-MB	120000	132000	126000	156000	138000	144000	156000	114000	168000	108000
20-60-018	Supply and delivery of 10m column	No.	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
20-60-019	Supply and delivery of control pillars	No.	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
20-60-020	Supply/del.:2core 4mm2 PVC/SWAPVC cable	Meter	LB-MB	560	616	588	728	644	672	728	532	784	504
20-60-021	Supply/delivery:1.5mm2 twin with ECC cable	Meter	LB-MB	560	616	588	728	644	672	728	532	784	504
20-60-022	Supply/delivery: 6.0mm2 green/yellow cable	Meter	LB-MB	560	616	588	728	644	672	728	532	784	504
20-60-023	Supply&del.:15mm dia.1.8m.earth electrode	Meter	LB-MB	560	616	588	728	644	672	728	532	784	504
20-60-024	Supply&delivery:bracket-7.6m column(single)	No.	LB-MB	4400	4840	4620	5720	5060	5280	5720	4180	6160	3960
20-60-025	Supply&delivery:bracket-10m column(single)	No.	LB-MB	4400	4840	4620	5720	5060	5280	5720	4180	6160	3960
20-60-026	Supply&delivery:bracket-25A,240Vac cutout	No.	LB-MB	4400	4840	4620	5720	5060	5280	5720	4180	6160	3960
20-60-027	Supply and delivery of cable tiles	Meter	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
20-60-028	Wiring for 7.6m column	Meter	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
20-60-029	Wiring for 10m column	Meter	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
20-60-030	Wiring for control pillar	Meter	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
20-60-031	Wiring for Earth electrode	Meter	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
20-60-032	Sup.&del.:brackets-7.6m column(Twin)	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-60-033	Sup.&del.:brackets-10m column(twin)	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-60-034	S.&d.:brackets-125W,choke-MBFlantern	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-60-035	S.&d.:90W choke complete with ignitor	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-60-036	S.&d.:135W son choke complete+ignitor	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-60-037	S.&d.:100W,240VACson choke c.+ignitor	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-60-038	S.&d.:150W, son choke complete+ignitor	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-60-039	S.&d.:250W choke - MBF mercury lantern	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-60-040	S.&D.:400W, choke for 400WMBF lantern	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-60-041	Supply and delivery of 90W, son lantern	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-042	Supply and delivery of 100W, lantern	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-043	Supply&delivery: 125W, MBF lantern	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-044	Supply&delivery: 90W SOX lamp Lantern	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-045	Supply&delivery: 150W lantern(screw type)	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-046	Sup.&del.:125W MBFlamp(screw type)	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-047	Sup.&del.:125W MBF lamp(3pin BC type)	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-048	Sup.&del.:100W SON -T lamp(screw type)	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60049	Sup.&del.:150W SON-T lamp(screw type)	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-050	Supply and delivery of 135W SOX lamp	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-051	Supply and delivery of 160W ML lamp(BC)	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-052	Supply and delivery of 160W lamp (ES)	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-053	Supply and delivery of 250W MBF lamp	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-054	Supply and delivery fo 400W MBF lamp	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-60-055	Supply and delivery of F locator	KS	LB-MB	60000	66000	63000	78000	69000	72000	78000	57000	84000	54000
20-60-056	Supply and delivery of street lighting tools	KS	LB-MB	60000	66000	63000	78000	69000	72000	78000	57000	84000	54000
20-60-057	Supply & delivery: street lighting testing eqpt.	KS	LB-MB	60000	66000	63000	78000	69000	72000	78000	57000	84000	54000
20-60-058	Digging of holes for 7.6m column	No.	LB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
20-60-059	Digging of holes for10m column	No.	LB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
20-60-060	Digging of holes for control pillar base	No.	LB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
20-60-061	Trenches for 2 core 4mm2 armoured cable	Meter	LB	6500	7150	6825	8450	7475	7800	8450	6175	9100	5850
20-60-062	Concreting and erection for 7.6m column	No.	LB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
20-60-063	Concreting and erection for 10m column	No.	LB	120000	132000	126000	156000	138000	144000	156000	114000	168000	108000
20-60-064	Concreting and erection for control pillar	No.	LB	150000	165000	157500	195000	172500	180000	195000	142500	210000	135000
20-60-065	Backfilling & compacting: 7.6m column hole	No.	MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
20-60-066	Backfilling & compacting: 10m column hole	No.	MB	120000	132000	126000	156000	138000	144000	156000	114000	168000	108000
20-60-067	Backfilling & comp.:control pillar base hole	No.	MB	120000	132000	126000	156000	138000	144000	156000	114000	168000	108000

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
20-60-068	Tiling for cable trenches	Meter	LB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
20-60-069	Installation:15mm dia. 1.8m earth electrode	No.	LB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
20-70-001	Provide and erect priority type signs 1000mm size	No.	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-70-002	Provide and erect warning type signs 750mm size	No.	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-70-003	Provide and erect warning type signs 1000mm size	No.	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-70-004	Provide and erect standard informatory signs 400*300 mm	No.	LB-MB	7500	8250	7875	9750	8625	9000	9750	7125	10500	6750
20-70-005	Provide and erect standard mandatory signs 600mm diameter	No.	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
20-70-006	Provide and erect Non-Standard informatory signs: (a) Less than 1m2	No.	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
20-70-007	Provide and erect Non-Standard informatory signs: (b) 1-2m2 area	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
20-70-008	Provide and erect Non-Standard informatory signs: (c) 2-5m2 area	No.	LB-MB	45000	49500	47250	58500	51750	54000	58500	42750	63000	40500
20-70-009	Provide and erect Non-Standard informatory signs: (d) >5m2 area	No.	LB-MB	500000	550000	525000	650000	575000	600000	650000	475000	700000	450000
20-70-010	Paint 0.1m wide themoplastic yellow centerline on the road as specified	m ²	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-70-011	Paint 0.1m wide themoplastic white lines on road	m ²	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-70-012	Paint 0.2m wide themoplastic white busbays separation marking	m ²	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-70-013	Paint 0.4m wide themoplastic white giveway lines at junctions	m ²	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-70-014	Paint 0.2m wide themoplastic white pedestrian crossing marking	m ²	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-70-015	Paint 0.25m thick wide themoplastic yellow lines on edge marking as directed by the Engineer	m ²	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-70-016	Excavate for, provide and place 250*125mm precast concrete kerbs in suport to carriageway, busbays and junctions as directed by the Engineer (1) Straight Kerbs	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-017	Excavate for, provide and place 250*125mm precast concrete kerbs in suport to carriageway, busbays and junctions as directed by the Engineer (2) Kerbs radius 1.5m - 6m	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-018	Excavate for, provide and place 250*125mm pre cast concrete kerbs in suport to carriageway, busbays and junctions as directed by the Engineer (3) Quadrants radius ,1m	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-019	Provide and lay precast road gullies with grating and 150m concrete pipe leading to open drain	No.	LB-MB	75000	82500	78750	97500	86250	90000	97500	71250	105000	67500
20-70-020	Provide and erect edge marker posts as directed by the Engineer	Meter	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
20-70-021	Paint single headed road arrows as directed by the Engineer	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
20-70-022	Provide and erect steel angle posts for guardrails at 3810mm intervals as directed by the Engineer	Meter	LB-MB	6500	7150	6825	8450	7475	7800	8450	6175	9100	5850
20-70-023	Provide and install flexbeam guardrails and 50mm diameter pipe rails as directed by the Engineer	Meter	LB-MB	6500	7150	6825	8450	7475	7800	8450	6175	9100	5850
20-70-024	Provide and paint white reflective paint every alternate sections of the existing guardrail as directed by the Engineer	Meter	LB-MB	6500	7150	6825	8450	7475	7800	8450	6175	9100	5850
20-70-025	Provide and paint white reflective delineators (Cats Eyes) as directed by the Engineer	Meter	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
20-70-026	Provide and erect edge kilometre marker posts as directed by the Engineer	No.	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
20-70-027	Provide, plant, water and tender trees seedlings until firmly established as directed by the Engineer	No.	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
20-70-028	Provide and erect environmental awareness billboards of size .5m2 at locations to be directed by the Engineer	No.	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
20-70-029	Provide and erect fuel levy awareness billboards of size .5m2 at locations to be directed by the Engineer	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-70-030	Provide and erect AIDS awareness billboards of size >5m2 at locations to be directed by the Engineer	No.	LB-MB	45000	49500	47250	58500	51750	54000	58500	42750	63000	40500
20-70-031	Paint 0.5m wide themoplastic pedestrian crossing marking	m ²	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-70-032	Provide and install all weather resistant reflective stickers on bollards as instructed by the engineer	No.	LB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
20-70-033	Reflecting self-adhesive stickers size 200mm X 200mm	No	LB-MB	800	880	840	1040	920	960	1040	760	1120	720
20-70-034	Guardrails repair by providing new RC posts	No	LB-MB	800	880	840	1040	920	960	1040	760	1120	720
20-70-035	Provide and instal handrails to bridges	Meter	LB-MB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
20-70-036	Provide & erect prohibitory type signs diameter 600mm	No	LB-MB	7500	8250	7875	9750	8625	9000	9750	7125	10500	6750
20-70-037	Roadstuds (a) undirectional - Stimsonite or similar	No.	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-70-038	Roadstuds(b) Bidirectional - Stimsonite or similar	No.	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
20-70-039	Provide,lay and joint kerbs including class 15/20 (a) Any Radius (raised and flush)	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-040	Provide,lay and joint kerbs including class 15/20 (b) 125*100mm road channels of any radius	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-041	Provide lay and joint 125 x 100mm precast concrete channels	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-042	Provide and place precast concrete channel blocks to footpath busbays etc inclusive of excavation, laying and jointing, concrete bedding and haunching etc as shown in the drawings.	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-043	Provide & erect gates	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
20-70-044	Provide and place kerbs raised to radii between 12m-6m	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-045	Provide and place kerbs raised to radii between 5m-1m	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-046	Provide and place kerbs raised to radii between 1.0m	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-047	Apply letters and symbols	m ²	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
20-70-048	Provide and place precast concrete channel blocks to footpaths, busbays etc inclusive of excavation, laying and jointing, concrete bedding and haunching etc. as shown in the shown in the drawings	Meter	LB-MB	600	660	630	780	690	720	780	570	840	540
20-70-049	As item 20-70-48 but raised straight kerbs	Meter	LB-MB	600	660	630	780	690	720	780	570	840	540
20-70-050	As item 20-70-48 but kerbs to radii equal to or more than 1.0m	Meter	LB-MB	600	660	630	780	690	720	780	570	840	540
20-70-051	As item 20-70-48 but kerbs to radii between 12m - 6m	Meter	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-052	Provide and erect reinforced concrete culvert marker posts	no.	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
20-70-053	Provide and erect reinforced concrete kilometer marker posts	Meter	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
20-70-054	Apply letter and symbols	m ²	LB-MB	1400	1540	1470	1820	1610	1680	1820	1330	1960	1260
20-70-055	Provide and install retro-reflective road studs (cat_s eyes)	No.	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
20-70-056	Provide and erect flex beam guardrail including end pieces	Meter	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
20-70-057	Provide and install reflective paint every alternate sections of existing guardrails	No.	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
20-70-058	Provide and place precast concrete channel blocks to footpaths bus-bays etc inclusive of excavation	Meter	LB-MB	800	880	840	1040	920	960	1040	760	1120	720
20-70-059	Provide and place precast concrete channel blocks to footpaths bus bays etc inclusive of excavation but raised straight kerbs	Meter	LB-MB	800	880	840	1040	920	960	1040	760	1120	720
20-70-060	Provide and place precast concrete channel blocks to footpaths bus bays etc inclusive of excavation but kerbs to radii equal to or more than 10 m	Meter	LB-MB	800	880	840	1040	920	960	1040	760	1120	720
20-70-061	Provide and place precast concrete channel blocks to footpaths bus bays etc inclusive of excavation but kerbs to radii between 12m-6m	Meter	LB-MB	800	880	840	1040	920	960	1040	760	1120	720
20-70-062	Supply, Construct and installation of girder foundation including anchor plates, bolts and nuts as per drawing	Meter	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
20-70-063	Supply, construct and installation of girder foundation including anchor plates, bolts, and nuts as per drawing	No.	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
20-70-064	Filter fabric behind abutment and wing wall weep holes to box culvert	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-065	Extra Over item 20-70-064 above for metal rings	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
20-70-066	Parapet to Culvert as per drawing	Meter	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
20-70-067	Guardrails to Roads Department Standard detail to Bridge	Meter	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
20-70-068	100mm diameter heavy duty P.V.C storm water drains deck	No	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
20-70-069	Two coats bituminous coating to top and sides of culvert and behind wing walls	m ²	LB-MB	1800	1980	1890	2340	2070	2160	2340	1710	2520	1620
Activity Group:- MISCELLANEOUS BRIDGE/DRIFT WORKS													
Bill No. 21													
21-50-001	Bridge Cleaning -Deck	m ²		2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
21-50-002	Bridge Cleaning-Riverbed	m ³	LB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
21-50-003	Bridge Deck Repair-Timber	m ²	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
21-50-004	Bridge Deck Replacement-Timber	m ³	LB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
21-50-005	Bridge Deck Replacement-Steel	m ³	LB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
21-50-006	Drift maintenance - desilting	m ³	LB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
21-50-007	Provide and place elastomeric laminated rubber free bearings size 406mmx279mmx58mm	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
21-50-008	Provide and place elastomeric laminated rubber free bearings size 406mmx279mmx74mm	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
21-50-009	150 mm diameter PVC service ducts (each 6.0m long) on deck	Meter	LB-MB	1500	1650	1575	1950	1725	1800	1950	1425	2100	1350
21-50-010	Allow Provisional Sum of Ksh 1,000,000 for the maintenance of existing bridges	P.S	LB-MB	1000000	1100000	1050000	1300000	1150000	1200000	1300000	950000	1400000	900000
21-50-011	As for item 21.04 but to exposed ends of expansion joints.	Meter	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
21-50-012	As Item 21.06 but horizontal	Meter	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
21-50-013	As item21.02 but code 3710444, size 406mm x 279mm x 74mm free bearings.	No	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
21-50-014	Carry out bridge site investigation including foundation drilling on each bridge site	No.	LB-MB	1500000	1650000	1575000	1950000	1725000	1800000	1950000	1425000	2100000	1350000
21-50-015	Carryout plate bearing test at the abutments	No	LB-MB	500000	550000	525000	650000	575000	600000	650000	475000	700000	450000
21-50-016	Detonating relay	No.	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
21-50-017	Ditto item 21-50-023 but fixed elastomeric laminated rubber bearing of size 279*229*39 mm. Include the 32 mm dowel and cap for fixing and seats using 2:1 sand/cement mortar as specified.	No	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
21-50-018	Ditto item 21-50-023 but the fixed elastomeric laminated rubber bearings of size406mmx279mm x58mm at bridge piers. Include the 32mm dowel and cap and casting the bearing seats using 2:1 sand cement mortar as specified.	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
21-50-019	Dual - purpose Hydraulic excavator (with a backhoe/ loader) and a rated bucket capacity of upto 1m3.	hr.	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
21-50-020	Explosive fuse	m	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
21-50-021	Gabion Mesh (2.0 x 1.0 x 1.0 m)	m ²	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
21-50-022	High yield steel over 16mm diameter size.	Ton	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
21-50-023	High yield steel up to and including 16mm diameter.	Ton	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
21-50-024	Mild steel over 16mm diameter size.	Ton	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
21-50-025	Mild steel Up to and including 16mm diameter.	Ton	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
21-50-026	Pentolite stick explosives or equivalent	kg	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
21-50-027	Provide 100m UPVC sleeves within the kerb for passage of services	No.	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
21-50-028	Provide and apply polystyrene filler or equivalent to expansion joints.	m	LB-MB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
21-50-029	Provide and erect handrail,guardrail,posts and fittings as per the bridge drawings	m	LB-MB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
21-50-030	Provide and fix "thioflex 600" expandite or equivalent sealant on all sides of concrete hinges as specified.	m	LB-MB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
21-50-031	Provide and fix "thioflex 600"expandite or equivalent sealant on all sides of concrete joints as specified.	m	LB-MB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
21-50-032	Provide and fix 76.1 mm Dia drain pipe to deck slab (each 375 mm long)	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
21-50-033	Provide and fix 88.9 mm diameter upvc pipes (each 785 mm long) to form weepholes in structure, include for filter fabric at inlet	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
21-50-034	Provide and fix guard rails to bridges as show on the drwg and as directed by the engineer.	m	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
21-50-035	Provide and fix pipe handrails to bridges as shown on the drawings and as directed by the engineer.	m	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
21-50-036	Provide and install 406 x 356 x 32 Elastomeric Laminated Bearing (Code 541), Free type.	No.	LB-MB	6500	7150	6825	8450	7475	7800	8450	6175	9100	5850
21-50-037	Provide and install 406 x 356 x 32 Elastomeric Laminated Bearing (Code 541), Fixed type.	No.	LB-MB	6500	7150	6825	8450	7475	7800	8450	6175	9100	5850
21-50-038	Provide and install bituminous felt bearings as shown in the drawings.	No	LB-MB	750	825	788	975	862.5	900	975	713	1050	675
21-50-039	Provide and install free elastometric laminated rubber bearings of size 297mmx229mm x39mm on bridge piers and abutments as specified	No	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
21-50-040	provide and install in position 200mm diameter service duct in plastic pipe	m	LB-MB	1200	1320	1260	1560	1380	1440	1560	1140	1680	1080

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
21-50-041	Provide and install vertical joint sealant for bridges at Nairobi River crossings at Km 0+752-Lusoi and Km 0+564-Munyu and Tigithi Bridge at Km 0+960 as shown in drawings.	m	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
21-50-042	Provide and install in position 75mm diameter and 300mm long plastic pipes through deck slab to provide drainage of the deck.	No	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
21-50-043	Provide and place a 0.5m wide drainage layer of class 14/20 mm to structural concrete in contact with fill material.	m ³	LB-MB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
21-50-044	Provide and place bitumen emulsion or cut back bitumen/rubber latex emulsion to all structural concrete	m ²	LB-MB	2050	2255	2153	2665	2357.5	2460	2665	1948	2870	1845
21-50-045	Provide and place bitumen emulsion or cutback bitumen to all structural concrete in contact with fill or cut soil	m ²	LB-MB	2050	2255	2153	2665	2357.5	2460	2665	1948	2870	1845
21-50-046	Provide and place galvanized flexi beam guardrails including end pieces, nuts and bolts along bridge approaches	m	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
21-50-047	Provide and place into position galvanized flexi-beam guardrails including end pieces, nuts and bolts along the approaches to culverts as per	M	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
21-50-048	provide and place into position handrails along the edge of the carriage way	m	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
21-50-049	Provide and place into position handrails along the edge of the carriageway as per drawings and as instructed by the Engineer.	m	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
21-50-050	Provide and place into position handrails to kerbs of bridge deck & ramps as shown on the drawing and as directed by the Engineer.	m	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
21-50-051	Provide asnd place 0.5m wide drainage layer of class 15/20mm to structural concrete	m ³	LB-MB	14000	15400	14700	18200	16100	16800	18200	13300	19600	12600
21-50-052	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	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
21-50-053	Rock fill to Gabions or around structures	m ³	LB-MB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
21-50-054	Shuttering Timber Class F1 finish	m ³	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
21-50-055	Shuttering Timber Class F3 finish	m ³	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
21-50-056	Wheel loader 4WD, articulated, SAE rated bucket capacity 1.5 - 2.0 m3	hr.	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
21-50-057	Wheel loader 4WD, articulated, SAE rated bucket capacity 2.1 - 3.4 m3	hr.	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
21-50-058	Provide and install vertical joint scalant for bridges	m	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
21-50-059	Ditto item 21.02 but the fixed elastometric laminated rubber bearings of size	No.	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
21-50-060	406mmx279mm x58mm at bridge piers. Include the 32mm dowel and cap and casting the bearing seats using 2:1 sand cement mortar as specified.			80000	88000	84000	104000	92000	96000	104000	76000	112000	72000
21-50-061	Two coat bituminous coating to all concrete below ground level	m ²	LB-MB	2070	2277	2174	2691	2380.5	2484	2691	1967	2898	1863
21-60-001	Bridge Painting	m ²	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
21-60-002	Water proofing to structures: Providing and placing bitumen emulsion or cutback bitumen/rubber latex emulsion to all structural concrete in contact with fill material or cut soil	m ²	LB	2000	2200	2100	2600	2300	2400	2600	1900	2800	1800
21-60-003	Bridge bearing: Providing and installing PSC fressynet laminated elastomeric bearings or similar approved as per the drawings	No.	LB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
21-60-003a	As in 21-60-003 but Fixed type 406x356x35mm	No	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
21-60-003b	As in 21-60-003 but Free type 406x356x35mm	No	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
21-60-003c	As in 21-60-003 but Fixed type 279x229x39mm	No	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
21-60-003d	As in 21-60-003 but Free type 279x229x39mm	No	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
21-60-004	Movement joints and sealants	KS	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
21-60-005	Pipe handrails to bridges	m	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
21-60-006	Guardrails to bridges	m	LB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
21-60-007	Surfacing to bridges	KS	LB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
21-60-008	weepholes	No.	LB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
21-60-009	Steel bollard	No.	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
21-60-010	Repair cracks in existing bridges as directed by the Engineer	m	LB-MB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
21-60-011	Provide all materials for joint and place 25mm thick bituminous felt at both interface of beams and abutments, piers as well as interface of deck slab	m ³	LB-MB	6000	6600	6300	7800	6900	7200	7800	5700	8400	5400
21-60-012	Provide all materials for joint and place 25mm thick flex cell filter	m ²	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
21-60-013	Provide and fix 75mm Diameter uPVC pipes to form weep holes in structure, include for filter fabric at inlet	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
21-60-014	Provide and fix 75mm Diameter drain pipe to deck slab	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
21-60-015	Provide and fix 100mm dia PVC service ducts on deck	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
21-60-016	Provide and place guardrail posts including bolts, nuts and weldings shown on drawings as directed by the Engineer	m	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
21-60-017	Provide and install guardrails and handrails on bridge or box culverts	m	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
21-60-018	Weep holes 75 mm dia	No.	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
21-60-019	Weep holes 100 mm dia	No	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
21-60-020	Joints and flexcell sealants or similar approved filler as shown on the drawing	m ²	LB-MB	20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
21-60-021	Movements joints at abutments including dowels	m	LB-MB	20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
21-60-022	Drip 25 mm in deck soft steel	m	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
21-60-023	Paraseal or similar approved cold poured polysulphide sealant	m	LB-MB	4500	4950	4725	5850	5175	5400	5850	4275	6300	4050
Activity Group:- SSSS													
Bill No. 24													
24-5000-01	Conduct AIDS/HIV awareness training for staff at site	Session	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
24-5000-02	Conduct AIDS/HIV awareness video shows	No.	LB-MB	50000	55000	52500	65000	57500	60000	65000	47500	70000	45000
24-5000-03	Conduct HIV/AIDS awareness training to staff on site	No.	LB-MB	50000	55000	52500	65000	57500	60000	65000	47500	70000	45000
24-5000-04	Conduct HIV/AIDS awareness video shows	No.	LB-MB	50000	55000	52500	65000	57500	60000	65000	47500	70000	45000
24-5000-05	Provide & erect HIV/AIDS awareness signs	No.	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
24-5000-06	Provide AIDS/HIV awareness posters	No.	LB-MB	10000	11000	10500	13000	11500	12000	13000	9500	14000	9000
24-5000-07	Provide AIDS/HIV awareness posters of various sizes	No.	LB-MB	50000	55000	52500	65000	57500	60000	65000	47500	70000	45000
24-5000-08	Provide AIDS/HIV awareness T-shirts and caps	set	LB-MB	8000	8800	8400	10400	9200	9600	10400	7600	11200	7200
24-5000-09	Provide condoms - Female	No.	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
24-5000-10	Provide condoms - Male	No.	LB-MB	25000	27500	26250	32500	28750	30000	32500	23750	35000	22500
24-5000-11	Provide, place and compact concrete class 30/20 as wearing course to Bus bay and Lay byes as shown in drawings	m ³	LB-MB	35000	38500	36750	45500	40250	42000	45500	33250	49000	31500
24-5000-12	Provide and fix in place with necessary overlap A142 structural steel mesh.	m ²	LB-MB	750	825	788	975	862.5	900	975	713	1050	675
24-5000-13	Provide and fix in place 25mm deep by 10mm thick polysulphide sealant to joints	m	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
24-5000-14	Provide and fix in place 50mm wide by 25mm deep timber fillet to joints	m	LB-MB	800	880	840	1040	920	960	1040	760	1120	720
24-5000-15	Provide and Place interlocking precast concrete paving blocks 450mm wide x 225mm long x 75mm thick including class 15 concrete bed and surround to form drains	m	LB-MB	2500	2750	2625	3250	2875	3000	3250	2375	3500	2250
24-5000-16	Class F1 finish formwork to any inclination	m ²	LB-MB	1000	1100	1050	1300	1150	1200	1300	950	1400	900
Activity Group:- CROSS CUTTING ISSUES													
Bill No. 25													
25-50-001a	HIV/Aids awareness and prevention campaigns	Months		250000	275000	262500	325000	287500	300000	325000	237500	350000	225000
25-50-001b	HIV/AIDS Prevention Campaigns	PC sum		1000000	1100000	1050000	1300000	1150000	1200000	1300000	950000	1400000	900000
25-50-002	Soil erosion mitigation measures	KS	LB	2000000	2200000	2100000	2600000	2300000	2400000	2600000	1900000	2800000	1800000
25-50-003	Other cross cutting issues	KS	LB-MB	1000000	1100000	1050000	1300000	1150000	1200000	1300000	950000	1400000	900000

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
25-50-004	Health and Safety Measures on Site	PC Sum		1000000	1100000	1050000	1300000	1150000	1200000	1300000	950000	1400000	900000
25-50-005	Allow for the availability of condoms to workers and staff for the duration of the contract	Months	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
25-50-006	Allow for participation of representative of local health authorities, PDH & NAC to train workers etc	Months	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
25-50-007	Allow for the Engagement of specialist HIV/AIDS subcontractor to deal with prevention and awareness activities as per program to be approved by the resident Engineer.	Months	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
25-50-008	Allow for preparation and submission of monthly reports on HIV/AIDS awareness and prevention activities. Reports to be tabled at site meetings.	Months	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
25-50-009	Provide & erect environmental billboards of size greater than 5m2 at shopping centres	Months	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
25-50-012	Provide, install and maintain HIV/AIDS awareness bill boards with approved message and graphics with maximum area 4m2 fabricated as per specifications of permanent informatory sign boards	No.	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
25-50-013	Allow for Video shows on HIV/AIDS related awareness and prevention matters every 3months	Quarterly	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
25-50-014	Allow for production and distribution of HIV/AIDS awareness T-Shirts printed with approved message and graphics	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
25-50-015	Allow for production and distribution of HIV/AIDS awareness Caps printed with approved message and graphics	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
25-50-016	Allow for production and distribution of HIV/AIDS awareness A1 size weather proved Posters printed with approved message and graphics	No.	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
25-50-017	Allow for production and distribution of HIV/AIDS awareness A3 size weather proved posters printed with approved message and graphics	No.	LB-MB	20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
25-50-018	Allow for production and distribution of 200X150mm stickers with HIV/AIDS awareness/prevention slogan	No.	LB-MB	20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
25-50-019	Allow for production and distribution of Key rings with HIV/AIDS awareness / prevention slogan	No.	LB-MB	20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
25-50-020	Allow for production and distribution of Ball point pens with HIV/AIDS awareness / prevention slogan	No.	LB-MB	5000	5500	5250	6500	5750	6000	6500	4750	7000	4500
25-50-021	Provide and erect HIV/AIDS awareness signposts(area > 5m2)	No.	LB-MB	75000	82500	78750	97500	86250	90000	97500	71250	105000	67500
25-50-022	Allow a Provisional sum for HIV/AIDS training	PC SUM	LB-MB	60000	66000	63000	78000	69000	72000	78000	57000	84000	54000

Item	Description	Unit	Technology	Nairobi Region	South Rift region	Nyanza Region	North Rift Region	Coast Region	Lower Eastern Region	Upper Eastern Region	Central Region	North Eastern Region	Western Region
25-50-024	Allow a Provisional sum for HIV/AIDS training.	PC Sum	LB-MB	2000000	2200000	2100000	2600000	2300000	2400000	2600000	1900000	2800000	1800000
25-50-025	Allow a Prime Cost of Kshs. 4,000,000.00 for monitoring of Environment Mitigation measures as directed by Engineer	PC Sum	LB-MB	4000000	4400000	4200000	5200000	4600000	4800000	5200000	3800000	5600000	3600000
Activity Group:- ROAD SAFETY AWARENESS CAMPAIGN													
Bill No. 26													
26-5000-02	Instituting a Road Safety Awareness Campaign	Session	LB-MB	500000	550000	525000	650000	575000	600000	650000	475000	700000	450000
26-5000-03	Instituting an Accident Prevention Campaign	No.	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
26-5000-04	Road Safety Training	Session	LB-MB	1000000	1100000	1050000	1300000	1150000	1200000	1300000	950000	1400000	900000
26-5000-05	Provide & Erect Road Safety Awareness signs	No.	LB-MB	500000	550000	525000	650000	575000	600000	650000	475000	700000	450000
26-5000-06	Provide Road Safety Awareness posters	No.	LB-MB	100000	110000	105000	130000	115000	120000	130000	95000	140000	90000
26-5000-07	Provide Road Safety Awareness T-shirts and caps	Set	LB-MB	50000	55000	52500	65000	57500	60000	65000	47500	70000	45000
Activity Group:- PERFORMANCE CONTRACT													
Bill No. 27													
27-50-001	Performance Based Routine Maintenance Off carriageway unpaved	Km-Month	LB-MB	15000	16500	15750	19500	17250	18000	19500	14250	21000	13500
27-50-002	Performance Based Routine Maintenance Off carriageway paved	Km-Month	LB-MB	30000	33000	31500	39000	34500	36000	39000	28500	42000	27000
27-50-003	Performance Based Routine Maintenance On carriageway unpaved	Km-Month	LB-MB	20000	22000	21000	26000	23000	24000	26000	19000	28000	18000
27-50-004	Performance Based Routine Maintenance on Single Carriage Way Paved	Km-Month	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
27-50-005	Performance Based Routine Maintenance on Dual Carriage Way Paved	Km-Month	LB-MB	40000	44000	42000	52000	46000	48000	52000	38000	56000	36000
27-50-006	Performance Based Routine Maintenance of Street Lighting	Km-Month	LB-MB	250000	275000	262500	325000	287500	300000	325000	237500	350000	225000

4.3 Review of Ad Hoc Market Survey Results

4.3.1 Introduction

In addition to the main market survey undertaken for the preparation of regional unit rates, a number of ad hoc market surveys were submitted to the Consultant for review. These surveys covered selected materials, work items and project-specific cost components that required further verification, either due to their significance in project cost estimates, observed price variations, or the need to confirm the reasonableness of rates proposed for specific works.

The purpose of this section is to present the results of the Consultant's review of these ad hoc market surveys. The review focused on assessing the reasonableness of the submitted rates, comparing them with available market survey data, official reference rates and relevant regional price trends, and identifying any major deviations that could affect cost estimation or procurement decisions.

The findings presented in this section should therefore be read as supplementary to the regional unit rates presented in Sections 4.1 and 4.2. They provide additional evidence for selected rates and offer project-specific insights where standard regional averages may not fully reflect prevailing market conditions, site-specific requirements or specialised construction inputs.

4.3.2 Coarse Aggregate for the Bisil – Namanga Road

South Rift Region			
Nakuru	Narok	Kajiado	Average

Labour				
Skilled Labour: Overseer	2000	1860	2500	2120.00
Artisans G2	1500	1200	2000	1566.67
Unskilled labour	600	675	1000	758.33
Support Staff	600	641.7	1000	747.22

Materials				
Cement Class 30 (Ordinary Portland Cement)	18	16	14	16

Fine aggregates(sand)	2095	4762	4762	3873
Fine aggregates(stone dust)	3571	3333	3648	3517

Coarse aggregates(chippings) - 3/6mm	3571	3690	2381	3214
Coarse aggregates(chippings) - 6/10mm	3571	3810	2381	3254
Coarse aggregates(chippings) - 10/14mm	3571	3929	0	2500
Coarse aggregates(chippings) - 14/20mm	3571	3929	0	2500

Fuel	165	165	165	165
Water	70	0	300	118

	Nairobi/ Central Region	South Rift Region	North Rift Region	Average
Wooden formwork	1,057	2,400	3,500	2,319

Plant and Equipment

	South Rift	Official Rates	Nairobi Region	North Rift
Water Tanker : 6000 - 8000 Lt.	2738	1780	4525	2000
Concrete Mixer	800	750	1000	1000
Vibrator/Pocker	250	250	250	250

	Official Rate	Nairobi/Ce ntral Region	South Rift Region	North Rift Region
Vibrator P/Tamper	400	530	500	630
Single drum steel Vibrator roller: 9-10T, 130 HP	4,840	2,594	3,231	3,813
Pneumatic Roller: 10T, 130HP	3,680	1,738	3,204	4,375
Bitumen Sprayer H/Operated	410	750	613	1,225
Chip spreader	250	5,375	4,375	4,500

Work Category	Concrete Work
Work Description	Provide, place and compact class 30/20 concrete mixture.
Unit	m3
Quantity	10

Name	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
Skilled Labour: Overseer	Person Day	2120.00	1	2,120	Based on 2022 Market Surveys
Artisans G2	Person Day	1566.67	2	3,133	Based on 2022 Market Surveys
Unskilled labour	Person Day	758.33	6	4,550	Based on 2022 Market Surveys
Support Staff	Person Day	747.22	1	747	Based on 2022 Market Surveys
Cement Class 30 (Ordinary Portland Cement)	m3	16.22	402	6,519	Based on 2022 Market Surveys
Fine aggregates(sand)	m3	3873.02	0.42	1,627	Based on 2022 Market Surveys
Coarse aggregates(chippings) - 10/14mm	m3	2500.00	0.84	2,100	Based on 2022 Market Surveys
Water	litre	117.75	0.191	22.49	Based on 2022 Market Surveys
Concrete Mixer	Hr	1211.60	1	1,212	Based on 2022 Market Surveys
Fuel	litre	165.00	4	660	Based on average estimated productivity in Japan (see note)
Vibrator/Poker	Hr	250.00	1	250	Based on 2022 Market Surveys
Fuel	litre	165.00	0.5	83	Based on average estimated productivity in Japan (see note)
Subtotal				23,023	
Overheads & Profits	%		10	2,302	% of Subtotal
Total				25,325	
Per unit				2,533	Total/Quantity

- Note**
1. Some of quantities which cannot be identified in Kenya refer to Japanese cost estimation manual with productivity conversion ratio(2.5 for labour and 1/0.7 for machinery) to African nations (JICA)
 2. The unit price does not include haulage cost.
 3. Miscellaneous cost is for general reusable equipment to execute the work. (e.g. hand tools, scaffoldings, safety gears)
 - 5%: clearing, cleaning, earthwork, base and surfacing works, simple street furniture works (e.g. marking, sign installation)
 - 10%: concrete works, structural works, complicated street furniture works (e.g. Microtunneling, street lamp works)

Work Category	Concrete Work
Work Description	Concrete Curing
Unit	m3
Quantity	10

Name	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
Skilled Labour: Overseer	Person Day	2120.00	1	2,120	Based on 2022 Market Surveys
Unskilled labour	Person Day	758.33	2	1,517	Based on 2022 Market Surveys
Support Staff	Person Day	747.22	1	747	Based on 2022 Market Surveys
Water Bowser	Hr	2737.50	1	2,738	Based on 2022 Market Surveys
Fuel	litre	165.00	3	495	Based on average estimated productivity in Japan (see note)
Subtotal				7,616	
Miscellaneous Cost	%		10	762	% of Subtotal
Total				8,378	
Per unit				838	Total/Quantity

Note 1. Some of quantities which cannot be identified in Kenya refer to Japanese cost estimation manual with productivity conversion ratio(2.5 for labour and 1/0.7 for machinery) to African nations (JICA)

Work Category	Vertical Formwork Class F2 finish
Work Item Description	Provide and erect formwork of class F2 finish to the vertical direction
Unit	m2 (W=1.0m)
Quantity	100

Name	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
Skilled Labour: Overseer	Person Day	2120.00	2	4,240	Based on 2022 Market Surveys
Artisans G2	Person Day	1566.67	2	3,133	Based on 2022 Market Surveys
Unskilled labour	Person Day	758.33	8	6,067	Based on 2022 Market Surveys
Support Staff	Person Day	747.22	1	747	
Wooden formwork panel	m2	2,319	120	278,296	100 * 1.2 (loss margin) = 120 - Based on 2022 Market Surveys
Subtotal				292,483	
Miscellaneous Cost	%		10	29,248	% of Subtotal
Total				321,732	
Per unit				3,217	Total/Quantity

Note

1. Some of quantities which cannot be identified in Kenya refer to Japanese cost estimation manual with productivity conversion ratio(2.5 for labour and 1/0.7 for machinery) to African nations (JICA)
2. The unit price does not include haulage cost.
3. Miscellaneous cost is for general reusable equipment to execute the work. (e.g. hand tools, scaffoldings, safety gears)
 - 5%: clearing, cleaning, earthwork, base and surfacing works, simple street furniture works (e.g. marking, sign installation)
 - 10%: concrete works, structural works, complicated street furniture works (e.g. Microtunneling, street lamp works)

		Costs of Bitumunous Mixes Based on 2022 Market Surveys						
	Unit	Nakuru	Narok	Kajiado	Nairobi	Mombasa	Kajiado	Average
Premix - AC Type I (cold)	m3		30,000	35,000		40,000	35,000	35,000
Premix - AC Type I (hot)	m3	27,659	35,000	29,000	32,920	35,833	29,000	31,569
Dense Bitumen Macadam	m3	20,000		35,000	31,239	35,833	35,000	31,414
Bituminous sealant (K-160)	m3	110,000	170,000	134,900	88,563	155,000	134,900	132,227
MC 30 Bitumen	litre	155	190	182	127	175	182	169
80/100 Pen grade bitumen	litre	108	150	188	96	145	188	146

Work Item Description	Cover a large worn surface area with aggregate distributed over spread bitumen to seal cracks and to recover adequate surface texture
Unit	litre
Quantity	60

Name	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
Skilled Labour: Overseer	Person Day	2,120	0.04	85	Based on Cost Estimation Manual 2022
Artisans G2	Person Day	1,567	0.12	188	Based on Cost Estimation Manual 2022
Unskilled labour	Person Day	758	0.13	99	Based on Cost Estimation Manual 2022
Support Staff	Person Day	747	0	0	Based on Cost Estimation Manual 2022
Bitumen Sprayer H/Operated	Hour	749	2.97	2,226	Based on Cost Estimation Manual 2022
Single drum steel Vibrator roller: 9-10T, 130 HP	Hour	3,619	0	0	Based on Cost Estimation Manual 2022
Pneumatic Roller: 10T, 130HP	Hour	3,249	0	0	Based on Cost Estimation Manual 2022
MC 30 Bitumen	litre	169	99	16,689	1kg = 1 litre 90 * 1.1 (loss margin) = 99
Subtotal				19,286	
Miscellaneous Cost	%		5	1,929	% of Subtotal
Total				21,215	
Per unit				354	Total/Quantity

Note

1. Some of quantities which cannot be identified in Kenya refer to Japanese cost estimation manual with productivity conversion ratio(2.5 for labour and 1/0.7 for machinery) to African nations (JICA) and KRB 2011:1570002
2. The unit price does not include haulage cost.
3. Miscellaneous cost is for general reusable equipment to execute the work. (e.g. hand tools, scaffoldings, safety gears)
 - 5%: clearing, cleaning, earthwork, base and surfacing works, simple street furniture works (e.g. marking, sign installation)
 - 10%: concrete works, structural works, complicated street furniture works (e.g. Microtunneling, street lamp works)

M1 Sprayer driving

Per hour

Name	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
Skilled Labour: Operator	Person Day	2,120	0.125	265	1day = 8 hours 1hour = 0.125day
Fuel	litre	165	1.03	170	Based on average fuel efficiency per horsepower in Japan $0.151\text{l}/\text{hp} \times 6.8\text{hp} = 1.03\text{l}$
Bitumen Sprayer H/Operated	Hour	749	1	749	
Miscellaneous Cost	%	0	0		
Total				1,184	

Note

1. Quantities are based on Kenyan experiences and Japanese cost estimation manual.

M2 Roller driving

Per hour

Name	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
Skilled Labour: Operator	Person Day	2,120	0.125	265	1day = 8 hours 1hour = 0.125day
Fuel	litre	165	10.92	1,802	Based on average fuel efficiency per horsepower in Japan $0.084\text{ℓ}/\text{hp} \times 130\text{hp} = 10.92\text{ℓ}$
Single drum steel Vibrator roller: 9-10T, 130 HP	Hour	3,619	1	3,619	
Miscellaneous Cost	%	0	0		
Total				5,686	

Note

1. Quantities are based on Kenyan experiences and Japanese cost estimation manual.

M3 Pneumatic roller driving

Per hour

Name	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
Skilled Labour: Operator	Person Day	2,120	0.125	265	1day = 8 hours 1hour = 0.125day
Fuel	litre	165	10.92	1,802	Based on average fuel efficiency per horsepower in Japan $0.084\text{ℓ}/\text{hp} \times 130\text{hp} = 10.92\text{ℓ}$
Pneumatic Roller: 10T, 130HP	Hour	3,249	1	3,249	
Miscellaneous Cost	%	0	0		
Total				5,316	

Note

1. Quantities are based on Kenyan experiences and Japanese cost estimation manual.

4.3.3 Microtunneling & HDPE Pipe Installation

MARKET SURVEY OF MICROTUNNELING & HDPE PIPE INSTALLATION

**DATE OF SURVEY: 28 November 2024 - 04
December 2024**

<u>Bill No</u>	<u>Bill items</u>	<u>Unit</u>	<u>Qty</u>	<u>Rate</u>	<u>Amount</u>
08-90-032	Horizontal Directional Drilling in Mixed Soil Condition for 630 mm dia Pipe, Including Carting to spoil in soft material).	metre	1	173,729	
08-90-033	Provision and Installation of PN 8 HDPE 630mm pipe across the carriageway (Minimum depth of 1.2 meters below the carriageway) to enable the execution of the Micro tunnelling works.	metre	1	16,151	

Name	Rate	Transport cost factors (within Nairobi)	Transport cost factors (Outside Nairobi)	Profits & Overheads	Profits & Overheads
Microtunneling	157,935	1	1	10%	173,729
Pipe Installation	14,683	1	1	10%	16,151

Work Category	Pipe Culvert Installation					
Work Item Name	Microtunneling					
Description	Horizontal Directional Drilling in Mixed Soil Condition for 630 mm dia Pipe, Including Carting to spoil in soft material).					
Unit	m					
Quantity	1					
Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
Excavation of Launch pit		m3	5,620	7	37,935	
Microtunneling		m	120,000	1	120,000	
Total					157,935	
Per unit					157,935	

Excavation of Launch pit						
Unit	m3					
Quantity	7					
Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
Skilled Labour: Overseer		Person Day	2500	1	2,500	
Artisans G2		Person Day	1700	0	0	
Unskilled labour		Person Day	700	4	2,800	
Support Staff		Person Day	1200	0	0	
Cart away waste material		m3	1,000	7.7625	7,763	
Gravel material		m3	1335	17.28	23,069	1.2*1.2*10*1.2 (loss margin) = 17.28
Subtotal					36,131	
Miscellaneous Cost		%		5	1,807	% of subtotal
Total					37,938	
Per unit					5,620	Total/Quantity

Microtunneling						
Unit	m					
Quantity	1					Per hour
Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
Skilled Labour: Operator		Person Day	2500	0	0	
Microtunneling		m	120,000	1	120,000	
Miscellaneous Cost		%	5	0		
Total					120,000	
Note	1.Quantities are based on Kenyan experiences and CEM cost estimation manual.					

Work Category	Pipe Culvert Installation					
Work Item Name	Pipe installation-630mm without surround					
Description	HDPE Pipe (as Weholite)					
Pipe Installation						
Unit	m					
Quantity	12					
Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
Skilled Labour: Overseer		Person Day	2500	1	2,500	Based on average estimated productivity in CEM (see note)
Artisans G2		Person Day	1700	1	1,700	Based on average estimated productivity in CEM (see note)
Unskilled labour		Person Day	700	5	3,500	Based on average estimated productivity in CEM (see note)
Support Staff		Person Day	1200	0	0	
Pipe		m	15,248	10	152,478	
Subtotal					160,178	
Miscellaneous Cost		%		10	16,018	% of subtotal
Total					176,195	
Per unit					14,683	Total/Quantity
Note	1.Productivity rates as per CEM 2022					
	2.Miscellaenous cost is for general reusable equipment to execute the work. (e.g. hand tools, scaffoldings, safety gears) - 5%: clearing, cleaning, earthwork, base and surfacing works, simple street furniture works (e.g. marking, sign installation) - 10%: concrete works, structural works, complicated street furniture works (e.g. Microtunneling, street lamp works)					

4.3.4 Static Weighbridge Station At Lukenya

Bill 1 – Construction of a Multideck Scale foundation for Lukenya Weighbridge Station

No	Description	Unit	Unit Price (Ksh)
A	CIVIL WORKS		
-	<u>EARTH WORKS</u>	-	-
1.1	Provide for 50mm thick blinding layer of quarry dust	M ³	2,000.00
-	<u>CONCRETE WORKS</u>	-	-
1.2	Provide 100mm thick Concrete class 15/20 blinding	M ³	15,000.00
1.3	Provide, place and compact Concrete class 30/20, for the bases, tie beams, columns and ramps as directed by the Engineer	M ³	35,000.00
1.4	Provide for insitu cast concrete kerb on the edge of the ramps as per the drawings and to approval of the Engineer	M ³	25,000.00
1.5	Provide, place and compact Concrete class 20/20, for footings of multi-deck display units, camera poles and street lighting poles as directed by the Engineer	M ³	28,000.00
1.10	Unformed Surface finishes	M ²	1,000.00
1.11	Formwork to edges of the concrete bases, columns and ramps.	M ²	2,000.00
-	<u>REINFORCEMENT</u>	-	-
	<i>Deformed Steel bars for the Bases and tie beams.</i>		
1.12	12mm bars	KG	200.00
1.13	10mm bars	KG	200.00
	<i>Deformed Steel bars for the Columns.</i>		
1.14	12mm bars	KG	200.00
1.15	8mm bars	KG	200.00
	<i>Deformed Steel bars for the Kerbs on the edges of Multideck approach.</i>		

No	Description	Unit	Unit Price (Ksh)
1.16	12mm bars	KG	200.00
1.17	8mm bars	KG	200.00
B	RELOCATION AND INSTALLATION OF MULTIDECK SCALE		
1.18	Relocate the Multideck scale at Mariakani Weighbridge Station, to Lukenya Weighbridge Station, including Installation, Integration and Commissioning. This should include integration with the Weighbridge Management system.	L.sum	7,850,000.00
1.19	Provide and Install new Multideck loadcells accompanied by a type approval test certificate. Each load cell shall have a capacity of 25 000 kg with at least 150% safe overload and at least 300% ultimate overload capability without damage occurring to the load cells or other parts of the scale.	No.	160,000.00
C	ACCESSORIES		
1.20	Remote Display Unit (5 lines displaying each platform + total)	No.	210,000.00
1.21	Automatic Boom Gate Barrier (3m fast speed operation)	No.	350,000.00
1.22	Large Display traffic lights (Red & Green)	No.	120,000.00
1.23	Wireless Audio System (Public Address, Microphone Loud Speaker)	No.	140,000.00
1.24	Automatic number plate reading cameras for the front and rear number plates.	No.	190,000.00
1.25	Overview cameras	No.	200,000.00
	Sub –Total C		

Bill 2 - Construction of Multideck Approach lanes at Lukenya Weighbridge Station

No	Description	Unit	Unit Price
A	CONCRETE WORKS	-	-
1.26	Provide, place and compact 300mm thick Concrete class 30/20 which meets required standards and fibre reinforced at 900g/m3.	M ³	35,000.00
1.27	Unformed Surface finishes	M ²	1,000.00
1.28	Formwork to edges of slabs	M ²	2,000.00
	Sub -Total A		
B	KERBS	-	-
1.29	Lay and Joint along the edge of the Auxiliary Lane 300*600mm kerbs (Class 30/20), including concrete bed and haunch along the HSWIM location	M ³	25,000.00
	Sub -Total B		

Bill 3 - Provision and Relocation of key infrastructure for Lukenya Static Weighbridge station

No	Description	Unit	Unit Price
3.1	Relocation of Generator and UPS from Suswa Weighbridge Station.	L.sum	210,000.00
3.2	Relocation of two Container offices, one from Gilgil and another from Suswa Weighbridge Stations.	L.sum	3,226,000.00
3.3	Provision of furniture for the two container offices at the Static Weighbridge Station.	L.sum	570,000.00
3.4	Connection of the Static Station the KPLC Natinal power grid and Electrical installations for the container offices	L.sum	1,200,000.00
3.5	Provision and Installation of computers for use at the Static Weighbridge station.	No.	210,000.00
3.6	Provision and installation of a server	No.	3,360,000.00
3.7	Provision and Installation of fire extinguishers at the Static weighbridge station	L.sum	105,000.00
	Sub -Total A		
	Bill 16 - BITUMINOUS MIXES		
16-70 -002	Provide, lay and roll Dense bitumen macadam (DBM) for base	M ³	35,000.00

Construction of a Multideck Scale foundation for Lukenya Weighbridge Station

	Description	Unit	Quantity	Unit Price	Total Price
A	CIVIL WORKS				
-	<u>EARTH WORKS</u>	-	-	-	-
1.1	Provide for 50mm thick blinding layer of quarry dust	M ³	26.40	2,000.00	52,800.00
-	<u>CONCRETE WORKS</u>	-	-	-	-
1.2	Provide 100mm thick Concrete class 15/20 blinding	M ³	92.13	15,000.00	1,381,950.00
1.3	Provide, place and compact Concrete class 30/20, for the bases, tie beams, columns and ramps as directed by the Engineer	M ³	157.07	35,000.00	5,497,345.00
1.4	Provide for insitu cast concrete kerb on the edge of the ramps as per the drawings and to approval of the Engineer	M ³	7.20	25,000.00	180,000.00
1.5	Provide, place and compact Concrete class 20/20, for footings of multi-deck display units, camera poles and street lighting poles as directed by the Engineer	M ³	2.35	28,000.00	65,835.00
1.10	Unformed Surface finishes	M ²	307.22	1,000.00	307,220.00
1.11	Formwork to edges of the concrete bases, columns and ramps.	M ²	249.80	2,000.00	499,600.00
-	<u>REINFORCEMENT</u>	-	-	-	-
	<i>Deformed Steel bars for the Bases and tie beams.</i>				
1.12	12mm bars	KG	1,927.21	200.00	385,441.20
1.13	10mm bars	KG	34.72	200.00	6,944.00
	<i>Deformed Steel bars for the Columns.</i>				
1.14	12mm bars	KG	312.00	200.00	62,400.00
1.15	8mm bars	KG	272.55	200.00	54,510.00
	<i>Deformed Steel bars for the Kerbs on the edges of Multideck approach.</i>				
1.16	12mm bars	KG	85.44	200.00	17,088.00

	Description	Unit	Quantity	Unit Price	Total Price
1.17	8mm bars	KG	63.20	200.00	12,640.00
	Sub-Total A				8,523,773.20
B	RELOCATION AND INSTALLATION OF MULTIDECK SCALE				
1.18	Relocate the Multideck scale at Mariakani Weighbridge Station, to Lukenya Weighbridge Station, including Installation, Integration and Commissioning. This should include integration with the Weighbridge Management system.	L.sum	1.00	7,850,000	7,850,0000
1.19	Provide and Install new Multideck loadcells accompanied by a type approval test certificate. Each load cell shall have a capacity of 25 000 kg with at least 150% safe overload and at least 300% ultimate overload capability without damage occurring to the load cells or other parts of the scale.	No.	16.00	160,000.00	2,560,000.00
	Sub –Total B				10,410,000.00
C	ACCESSORIES				
1.20	Remote Display Unit (5 lines displaying each platform + total)	No.	1.00	210,000.00	210,000.00
1.21	Automatic Boom Gate Barrier (3m fast speed operation)	No.	2.00	350,000.00	700,000.00
1.22	Large Display traffic lights (Red & Green)	No.	2.00	120,000.00	240,000.00
1.23	Wireless Audio System (Public Address, Microphone Loud Speaker)	No.	1.00	140,000.00	140,000.00
1.24	Automatic number plate reading cameras for the front and rear number plates.	No.	2.00	190,000.00	380,000.00
1.25	Overview cameras	No.	1.00	200,000.00	200,000.00
	Sub –Total C				1,870,000.00

	Description	Unit	Quantity	Unit Price	Total Price
	TOTAL BILL 1				20,803,773.20
		Length	150	Width	4.00
	Description	Unit	Quantity	Unit Price	Total Price
	Bill 2 - Construction of Multideck Approach lanes at Lukenya Weighbridge Station			Kshs.	Kshs.
A	<u>CONCRETE WORKS</u>	-	-	-	
1.26	Provide, place and compact 300mm thick Concrete class 30/20 which meets required standards and fibre reinforced at 900g/m ³ .	M ³	168.00	35,000.00	5,880,000.00
1.27	Unformed Surface finishes	M ²	600.00	1,000.00	600,000.00
1.28	Formwork to edges of slabs	M ²	84.00	2,000.00	168,000.00
	Sub -Total A				6,648,000.00
B	<u>KERBS</u>	-	-	-	
1.29	Lay and Joint along the edge of the Auxiliary Lane 300*600mm kerbs (Class 30/20), including concrete bed and haunch along the HSWIM location	M ³	54.00	25,000.00	1,350,000.00
	Sub -Total B				1,350,000.00
	Total of Bill 2 carried forward to summary				7,998,000.00

	Description	Unit	Quantity	Unit Price	Total Price
	Description	Unit	Quantity	Unit Price	Total Price
	Bill 3 - Provision and Relocation of key infrastructure for Lukenya Static Weighbridge station.			Kshs.	Kshs.
3.1	Relocation of Generator and UPS from Suswa Weighbridge Station.	L.sum	1.00	210,000.00	210,000.00
3.2	Relocation of two Container offices, one from Gilgil and another from Suswa Weighbridge Stations.	L.sum	1.00	3,226,000	3,226,000.00
3.3	Provision of furniture for the two container offices at the Static Weighbridge Station.	L.sum	1.00	570,000.00	570,000.00
3.4	Connection of the Static Station the KPLC Natinal power grid and Electrical installations for the container offices	L.sum	1.00	1,200,000.	1,200,000.00
3.5	Provision and Installation of computers for use at the Static Weighbridge station.	No.	5.00	210,000.00	1,050,000.00
3.6	Provision and installation of a server	No.	1.00	3,360,000.	3,360,000.00
3.7	Provision and Installation of fire extinguishers at the Static weighbridge station	L.sum	1.00	105,000.00	105,000.00
	Sub –Total A				9,721,000.00
	Total of Bill 3 carried forward to summary				9,721,000.00
	Description	Unit	Quantity	Unit Price	Total Price
	Bill 16 - BITUMINOUS MIXES			Kshs.	Kshs.
16-70-002	Provide, lay and roll Dense bitumen macadam (DBM) for base	M ³	6,000.00	35,000.00	210,000,000
	Sub –Total 16				210,000,000.

	Description	Unit	Quantity	Unit Price	Total Price
Total of Bill 16 carried forward to summary					210,000,000.
	Description	Total Price			
	SUMMARY OF BILLS				
1	Construction of a Multideck Scale foundation for Lukenya Weighbridge Station	20,803,773.20			
2	Construction of Multideck Approach lanes at Lukenya Weighbridge Station	7,998,000.00			
3	Provision and key infrastructure for Lukenya Static Weighbridge station.	9,721,000.00			
16	Bituminous Mixes	210,000,000.			
	Sub-Total 1	248,522,773.20			
	VAT @16%	39,763,643.71			
GRAND TOTAL Engineer's Estimate		288,286,416.			

4.3.5 Precoated Chippings (6/10mm and 14/20mm)

This report details the findings of an urgent market survey commissioned by the Kenya National Highways Authority (KeNHA) to assess current market rates for pre-coated chippings (6/10mm and 14/20mm). Conducted on 26th September 2024, this survey supports project cost management by evaluating pricing across multiple suppliers, ensuring competitive procurement within the ongoing contract KeNHA/2654/2022.

Table 3 shows the calculated bills of quantities (BOQ) rates for pre-coated chippings (6/10mm and 14/20mm), excluding VAT.

Table 3: Bill of Quantities for Precoated

ITEM	DESCRIPTION	UNIT	QTY	RATE (KES)	Amount (KES)
	Double Surface Dressing				
15.03	Provide, transport, lay and roll 14/20 mm class 1 precoated chippings as 1st seal of double surface dressing to carriageway, shoulders, service Roads, footways, junctions and accesses at a spread rate of 90-110 m2/m3	m3	25,700	21,628	555,829,963
15.05	Provide, transport, lay and roll 6/10 mm class 1 precoated chippings as 2nd seal of double surface dressing to carriageway, shoulders, service Roads, footways, junctions and accesses at a spread rate of 90-110 m2/m3	m3	27,053	21,130	571,619,745

The subsequent sections provide the methodology, inputs and assumptions for obtaining the BOQ rates.

Table 4 provides an overview of the market rates for different sizes of pre-coated chippings (6/10mm and 14/20mm), excluding VAT.

Table 4: Summary of Costs

Description	Type	Cost in Kshs (Ex VAT)	Remarks
Average Cost at Source (manufacturing cost)	1st seal (14/20 chippings) (Ton)	5,775	Excludes haulage, laying and rolling
	2nd seal (6/10 chippings) (Ton)	5,275	Excludes haulage, laying and rolling
Average Cost + Laying and Rolling	1st seal (14/20 chippings) (Ton)	11,047	Excludes haulage
	2nd seal (6/10 chippings) (Ton)	10,549	Excludes haulage
Haulage Cost	Haulage Cost per Ton Per Km	52.90	Haulage only (inclusive of cess)
	Total Haulage Cost per Ton Per Km	10,581	Assume source 400km around Kilifi

Table 5 outlines the costs provided by various suppliers for pre-coated chippings, exclusive of VAT. These costs were averaged to determine the average cost at source, which is assumed to reflect the manufacturing cost of the pre-coated chippings..

Table 5: Materials Basic Prices from Market Survey

BIDDER NO:	BIDDER NAME	Item Description	Quantities	Cost at Source		Location	Quotation	
				Unit Price	Total Price		Date	Attached
1	Vibrama Investments Ltd	1st seal (14/20 chippings) (Ton)	25,700	6,500	167,050,000	Kitengela	27/09/2024	Yes
		2nd seal (6/10 chippings) (Ton)	25,053	5,500	137,791,500	Kitengela	27/09/2024	Yes
2	Pride Enterprises Limited	1st seal (14/20 chippings) (Ton)	25,700	5,100	131,070,000	Katani	27/09/2024	Yes
		2nd seal (6/10 chippings) (Ton)	25,053	5,100	127,770,300	Katani	27/09/2024	Yes
3	SS Mehta and sons Limited	1st seal (14/20 chippings) (Ton)	25,700	6,000	154,200,000	Jaribuni, Kilifi	30/09/2024	Yes
		2nd seal (6/10 chippings) (Ton)	25,053	6,000	150,318,000	Jaribuni, Kilifi	30/09/2024	Yes
4	Garissa quarries	1st seal (14/20 chippings) (Ton)	25,700	5,500	141,350,000	Madogo	30/09/2024	Verbal
		2nd seal (6/10 chippings) (Ton)	25,053	4,500	112,738,500	Madogo	30/09/2024	Verbal
	Average Cost at Source	1st seal (14/20 chippings) (Ton)		5,775				
		2nd seal (6/10 chippings) (Ton)		5,275				

Table 6 breaks down the haulage cost of transporting pre-coated chippings from the supplier to the project site (excluding VAT).

Table 6: Average Unit Cost of Haulage of Pre-coated Chippings

Haulage Cost Breakdown for Pre-coated Chippings			
Description		Formula	Unit
Distance			
Distance Kilifi - Lamu (km)	312	Total distance	km
Midpoint Lamu - Garissa (km)	128.5	Total distance / 2	km
Total Distance to Site (km)	440.5		km
Truck Capacity (tons)	16	Input manually (e.g., 15 tons)	tons/trip
Fuel Consumption (km/litre)	4.5	Input manually (e.g., 0.5 litres/km)	km/litre
Fuel Price (KES/litre) (Diesel in Lamu)	171	Input manually (e.g., 200 KES/litre)	KES/litre
Number of Trips	1	Required Quantity (tons) / Truck Capacity	trips
Cess	1500		
Fuel Cost per Trip	338,965	Distance to Site * 2 * Fuel Consumption * Fuel Price	KES/trip
Loading Cost per Trip	0	Input manually (e.g., 1,000 KES/trip)	KES/trip
Unloading Cost per Trip	0	Input manually (e.g., 1,000 KES/trip)	KES/trip
Maintenance & Overhead Costs	33,896	Input manually (e.g., 500 KES/trip)	KES/trip
Total Haulage Cost per Trip	372,861	Fuel Cost per Trip + Loading Cost + Unloading Cost + Maintenance Costs	KES/trip
Total Haulage Cost per Ton	23,304	Total Haulage Cost per Trip / Truck Capacity	KES/ton
Total Haulage Cost per Ton Per Km	52.90	Total Haulage Cost per Trip / Truck Capacity	KES/ton/Km

Table 7 provides the cost breakdown for the surface dressing work involving 6/10mm pre-coated chippings.

Table 7: Cost Breakdown for 6/10 mm precoated chipping

Work Category	Surface Dressing						
Work Item Name	Provide and roll 6/10 mm precoated chipping						
Unit	m3 (5cm)						
Quantity	5						
Code	Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
22-50-007	Skilled Labour: Overseer		Person Day	2500	0.04	100	See note 1
22-50-005	Artisans G2		Person Day	1700	0.12	204	See note 1
22-50-002	Unskilled labour		Person Day	700	0.13	91	See note 1
22-50-001	Support Staff		Person Day	1200	0	0	See note 1
22-50-279	Pre-coated chippings (MC30) - 6/10mm	1.9 ton/m3	m3	2,776	5.5	15,270	5*1.1 (loss margin) = 5.5
M1	Sprayer driving		Hour	5,970	0.5	2,985	See note 1
M2	Chip spreader driving		Hour	6,209	1	6,209	See note 1
M3	Pneumatic roller driving		Hour	8,457	3	25,372	See note 1
	Subtotal					50,231	
	Miscellaneous Cost		%		5	2,512	% of subtotal
	Total					52,743	
	Per unit					10,549	Total/Quantity
M1 Sprayer driving							
						Per hour	
Code	Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
22-50-427	Skilled Labour: Operator		Person Day	2100	0.125	263	See note 1
22-50-297	Fuel	Diesel	litre	201	1.03	207	See note 1
22-50-217	Bitumen Sprayer H/Operated	200L	Hour	5500	1	5,500	
	Miscellaneous Cost		%	0	0		
	Total					5,970	
M2 chip spreader driving							
						Per hour	
Code	Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
22.50.101	Skilled Labour: Operator		Person Day	2100	0.125	263	See note 1
22.74.002	Fuel	Diesel	litre	201	5.33	1,071	See note 1
22.67.110	Chip spreader	0	Hour	4,875	1	4,875	
	Miscellaneous Cost		%	0	0		
	Total					6,209	
M3 Pneumatic roller driving							
						Per hour	
Code	Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
22-50-427	Skilled Labour: Operator		Person Day	2100	0.125	263	See note 1
22-50-297	Fuel	Diesel	litre	201	10.92	2,195	See note 1
22-50-412	Pneumatic Roller: 10T, 130HP	0	Hour	6,000	1	6,000	
	Miscellaneous Cost		%	0	0		
	Total					8,457	
Note	1.Check KRB Cost estimation manual for productivity and consumption rates 2.The unit price does not include haulage cost. 3.Miscellaneous cost is for general reusable equipment to execute the work. (e.g. hand tools, scaffoldings, safety gears)						

Similar to the above, **Table 8** outlines the cost breakdown for surface dressing work involving 10/14mm pre-coated chippings.

Table 8: Cost Breakdown for 14/20 mm precoated chipping

Work Category	Surface Dressing						
Work Item Name	Provide and roll 10/14 mm precoated chipping						
Unit	m ³ (5cm)						
Quantity	5						
Code	Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
22-50-007	Skilled Labour: Overseer		Person Day	2500	0.04	100	See note 1
22-50-005	Artisans G2		Person Day	1700	0.12	204	See note 1
22-50-002	Unskilled labour		Person Day	700	0.13	91	See note 1
22-50-001	Support Staff		Person Day	1200	0	0	
22-50-280	Pre-coated chippings (MC30) - 10/14mm	1.8 ton/m ³	m ³	3,208	5.5	17,646	5*1.1 (loss margin) = 5.5
M1	Sprayer driving		Hour	5,970	0.5	2,985	See note 1
M2	Chip spreader driving		Hour	6,209	1	6,209	See note 1
M4	Pneumatic roller driving		Hour	8,457	3	25,372	See note 1
	Subtotal					52,607	
	Miscellaneous Cost		%		5	2,630	% of subtotal
	Total					55,237	
	Per unit					11,047	Total/Quantity
M1 Sprayer driving							
				Per hour			
Code	Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
22-50-427	Skilled Labour: Operator		Person Day	2100	0.125	263	See note 1
22-50-297	Fuel	Diesel	litre	201	1.03	207	See note 1
22-50-217	Bitumen Sprayer H/Operated	200L	Hour	5500	1	5,500	
	Miscellaneous Cost		%	0	0		
	Total					5,970	
M2 chip spreader driving							
				Per hour			
Code	Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
22-50-427	Skilled Labour: Operator		Person Day	2100	0.125	263	See note 1
22-50-297	Fuel	Diesel	litre	201	5.33	1,071	See note 1
22-50-221	Chip spreader	0	Hour	4,875	1	4,875	
	Miscellaneous Cost		%	0	0		
	Total					6,209	
M4 Pneumatic roller driving							
				Per hour			
Code	Name	Type	Unit	Unit price(Ksh)	Quantity	Sum (Ksh)	Remarks
22-50-427	Skilled Labour: Operator		Person Day	2100	0.125	263	See note 1
22-50-297	Fuel	Diesel	litre	201	10.92	2,195	See note 1
22-50-412	Pneumatic Roller: 10T, 130HP	0	Hour	6,000	1	6,000	
	Miscellaneous Cost		%	0	0		
	Total					8,457	
Note	1.Check KRB Cost estimation manual for productivity and consumption rates 2.The unit price does not include haulage cost. 3.Miscellaneous cost is for general reusable equipment to execute the work. (e.g. hand tools, scaffoldings, safety gears)						

APPENDICES - QUOTATIONS

PRIDE ENTERPRISES LIMITED					
P. O. BOX 826 - 40100, KISUMU, KENYA Fax. 057 2020571			MOBILE: 0731 826 826 EMAIL: info@pridegrp.com		
QUOTE/PROFORMA INVOICE					
Customer: LINDHURST GLOBAL LIMITED P. O. BOX 24153-00502 NAIROBI PIN NO.: P051501658B MOBILE : 0723108672 email:lindhurstglobal@gmail.com			27.09.2024 PAYMENT DETAILS ACCOUNT NAME: PRIDE ENTERPRISES LTD BANK : PRIME BANK LTD BRANCH : KISUMU BRANCH ACCOUNT NUMBER: 3000089974 MPESA PAYBILL NO. 135278		
TERMS & CONDITIONS 1) PRICE VALID FOR 7 DAYS FROM DATE QUOTED. THEREAFTER RECONFIRMATION NEEDED FOR PRICE AND SUPPLY 2) PAYMENT: 100% ADVANCE					
SUPPLIED FROM KATANI SITE					
NO	DESCRIPTION	UNIT	Quantity	Unit Rate in KSHS	TOTAL in KSHS
1	PRECOATED CHIPPINGS 6/10	TONS	36,327.00	5,100.00	185,267,700.00
2	PRECOATED CHIPPINGS 14/20	TONS	37,265.00	5,100.00	190,051,500.00
PAYMENT DETAILS 100% ADVANCE PRIDE ENTERPRISES LIMITED P.O. BOX 826 - 40100, KISUMU, KENYA NAIROBI OFFICE TEL: 0731 826 826 www.pridegrp.com					
NOTE: 1) THIS IS A QUOTATION AND CANNOT BE USED AS AN INVOICE OR TO CLAIM VAT 2) KINDLY SIGN THE QUOTATION ON ACCEPTANCE 3) ANY AMOUNT OUTSTANDING FROM AGREED TERMS WILL ATTRACT COMPOUNDING INTEREST OF 3% PER MONTH ON MONTHLY REST 4) PRICE INCL OF VAT @16% 5) POST DATED CHEQUES SHALL BE BANKED ON THE EXACT DATE WITH NO EXEMPTIONS					
Amount chargeable (in words): Kenya Shillings : Three hundred seventy five million three hundred nineteen thousand two hundred only.			NET PRICE INCLUSIVE OF VAT:		375,319,200.00
ACCEPTED above terms , conditions and prices. LINDHURST GLOBAL LIMITED P. O. BOX 24153-00502 NAIROBI				For Pride Enterprises Limited For _____ 27.09.2024 Director	
SIGN _____				DATE: _____	

VIBRAMA INVESTMENTS LTD

Kitengela, Kenya

Mobile: 0723668898,0720075153,0731672727 , WWW.VIBRAMAINVESTMENTSLTD.CO.KE

KRA PIN :P052042970Y, P.O. BOX :695

VAT: 16

Quotation

Quotation number 2024/0745

Customer

LINDHURST CLOBAL LTD

Mobile: 07233108672

Date 09/27/2024 09:20

Driver: :

Car No::

Product	Quantity	Unit Price	Discount	Subtotal
PRE-COATED CHIPPINGS (14/20)	1.00 Ton	13,000.00	6,500.00	6,500.00
PRECOATED CHIPPINGS(6-10MM)	1.00 Ton	5,500.00	0.00	5,500.00

Total Quantity	2.00
Subtotal:	KSh 12,000.00
Discount	(-) KSh 6,500.00
Total:	KSh 12,000.00

Account Name	Bank Name	Bank Name	Branch
Vibrama Investments Ltd	KCB	1291350373	Kitengela
Vibrama Investments Ltd	EQUITY	1490282042367EPZ	
Vibrama Investment Ltd	ABSA	2045238582	Kitengela

5 CONCLUSIONS AND WAY FORWARD

The Price Reference Guide is critical in the estimation of road construction and maintenance costs and providing sufficient information to inform appropriate decision-making by the Tender & Procurement Committees.

A review of the data collected during the market survey show consistent variations within range across all the regions. A further comparison of the data with the Cost Estimation Manual (CEM 2024) developed by the Kenya Roads Board (KRB) shows some consistency with gradual increase which can be attributed to the current increase in the factors that affect these prices such as inflation rates, foreign exchange and high fuel costs.

We can therefore conclude that the unit prices and rates obtained reflect the current market conditions and we considered them adequate to be used for use in the development of the price reference guide.

The data can also be used in the development and management of the road transport sub-system in the following areas:

1. Formulation and evaluation of short and long-term road infrastructure-related policies and operation strategies, regulations and financing strategies;
2. Undertaking of standardization of estimation procedures for forecasting and simulating future scenarios for long-term road sector planning;
3. Identification and prioritization of road investment opportunities for maintenance, widening, strengthening, reconstruction and new construction using economic criteria;
4. Predicting future roadworks cost trends for planning and budgeting; and,
5. Evaluation of contract performance with respect to costs of materials, price of labour and machinery and equipment.

The next version of the Price Reference Guide shall be prepared in June 2026.

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APPENDICES

Appendix 1: Rates From First Principles