

		BQ AMOUNT
<u>PRELIMINARIES</u>		
<u>PRELIMINARY PARTICULARS</u>		
A	<u>NAME OF PARTIES</u>	
	The "Employer" is : Kenya Power & Lighting Co. Ltd P.O. Box 30099 - 00100 <u>NAIROBI</u>	
	The term "Employer" and "Kenya Power" and "Kenya Power & Lighting Co. Ltd"	
	The "Project Manager" is : The Manager, Administration & Property, HR& Administration Kenya Power & Lighting Co. Ltd P.O. Box 30099 - 00101 <u>NAIROBI</u>	
	The "Project Officer " is : The Kenya Power Projects Officer Administration & Property, HR& Administration Kenya Power & Lighting Co. Ltd P.O. Box 30099 - 00101 <u>NAIROBI</u>	
	The "Project Quantity Surveyor" is : The Kenya Power Quantity Surveyor, Administration & Property, HR& Administration Kenya Power & Lighting Co. Ltd P.O. Box 30099 - 00101 <u>NAIROBI</u>	
B	<u>DESCRIPTION OF SITE</u>	
	The site is located at the Kenya Power 132 Kv Sub station in Nyeri County in Mount Kenya region. The substation lies along the Nyeri - Nanyuki highway, about 18 Kilometres from Nyeri town. The Contractor shall obtain the Project Manager's approval for the siting of all temporary buildings, spoil heaps, temporary paths and storage areas for materials. The Contractor shall visit the Sites to acquaint himself with their respective natures and position, the nature of the ground, substrata and other local conditions, position of power and water supplies, access roads or any other limitations, and no claims for extras will be considered on account of lack of knowledge in this respect. The Contractor must obtain the Project Manager's approval and directions regarding the use of any materials found on the site.	
C	<u>ACCESS TO SITE</u>	
	Access to site shall be as directed by the Project Manager. The Contractor shall strictly observe police & NTSA regulations regarding traffic movement.	
	Preliminaries Carried to collection KShs.	
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A	<u>WORKING AND STORAGE SPACE</u>	
	Working and storage space will be confined to the area designated by the Project Manager within the plot boundary.	
B	<u>WORKING HOURS</u>	
	The Work must be carried out to cause the minimum inconvenience to the	

occupants of the adjoining premises. In particular, no hammering, mechanical drilling or other unduly noisy work may be commenced before 8.00 a.m. or continued after 6.00 p.m. without prior approval of the Project Manager.

C DESCRIPTION OF THE WORKS

The Works comprise;

- a) Construction of office block
- b) Construction of workshop shed
- c) Paving works
- d) Construction of a bio-digester
- e) Construction of washrooms

Services

- a) The services include repairs to installation of electrical and plumbing works

Preliminaries

Carried to collection

KShs.

GENERAL MATTERS

SUFFICIENCY OF TENDER

- A The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his Tender for the Works and of the rates and prices stated in the Priced Bills of Quantities, which rates and prices shall cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the Works.

B STAMP CHARGES

The Contractor shall allow for the payment of all Stamp Charges in connection with the Surety and Contract Agreement.

C DEFINITIONS AND ABBREVIATIONS

Terms used in these Bills of Quantities shall be interpreted as follows:

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|---------------|---|
| "Approved" | Shall mean approved by the Project Manager. |
| "as directed" | Shall mean as directed by the Project Manager. |
| "B.S." | Shall mean the current British Standard specifications published by the British Standards Institution, 2 Park Street, London W.1., England. |
| "CM." | Shall mean Cubic Metres. |
| "SM." | Shall mean Square Metres. |
| "LM." | Shall mean Linear Metres. |
| "MM" | Shall mean Millimetres. |

"KG."	Shall mean Kilogramme.	
"NO."	Shall mean Number.	
"M.S"	Shall mean Measured Separately	
PRS or Prs	Shall mean Pairs	
a.b.d	Shall mean as before described	
Ditto or Do	Shall mean the whole of the preceding description except as qualified in the description in which it occurs.	
NTSA	Shall mean National Transport & Safety Authority	
Preliminaries	Carried to collection	KShs.

<p>A <u>PROGRESS SCHEDULE</u> The Contractor shall, upon receiving instructions to proceed with the Work, draw up a time and progress Schedule setting out the order in which the Works are to be carried out with the appropriate dates thereof. This Time and Progress schedule is to be agreed with the Project Manager and no deviation from the order set out in this Schedule will be permitted without the written consent of the Project Manager. The Main Contractor will be responsible for arranging the above programme with all Sub-Contractors including the Nominated Sub-Contractors and Nominated Suppliers.</p> <p>B <u>FIGURED DIMENSIONS</u> Figured dimensions are to be followed in preference to dimensions scaled from the Drawings; but wherever possible dimensions are to be taken on the Site or from the Buildings. Before any Work is commenced by Sub-Contractors or Specialist Firms, dimensions must be checked on the Site and/or buildings and agreed with the Contractor, irrespective of the comparable dimensions shown on the Drawings. The Contractor shall be responsible for the accuracy of such dimensions.</p> <p>C <u>PROVISIONAL WORK</u> All "Provisional" and other work liable to adjustment under this Contract shall be left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the Quantity Surveyor. Immediately the work is ready for measurement, the Contractor shall give notice to the Quantity Surveyor. If the Contractor makes default in these respects he shall, if the Project Manager so directs, uncover the work at his own expense to enable the measurements to be taken.</p> <p>D <u>EXISTING SERVICES</u> Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric cables, water pipes or other services in the area and he shall make whatever provisions may be required by the Authorities concerned for the support and protection of such services. Any damage or disturbance caused to any services shall be reported immediately to the Project Manager and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense.</p> <p>E <u>TRANSPORT TO AND FROM THE SITE</u> The Contractor shall include in his prices for the transport of materials workmen, etc., to and from the Site of the Proposed Works, at such hours and</p>	
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by such routes and vehicles as are permitted by the Authorities and in particular		
by the Transport Licensing Board and / or the National Transport & Safety Authority ,		
Preliminaries	Carried to collection	KShs.

A	<p><u>PUBLIC AND PRIVATE ROADS, PAVEMENTS, ETC</u></p> <p>The Contractor will be required to make good, at his own expense any damage he may cause to the present road surfaces and pavements within or beyond the boundary of the Site, during the period of the Works. In particular, all existing trees, shrubs, plants. etc., which may be destroyed or damaged during the progress of the Works are to be made good by the Contractor to the approval of the Project Manager.</p>				
B	<p><u>POLICE REGULATIONS</u></p> <p>The Contractor is to allow for complying with all instructions and regulations of the police Authorities.</p>				
C	<p><u>ENVIRONMENTAL REGULATIONS</u></p> <p>The Contractor shall observe all the requirements of the National Environment Management Authority (NEMA) and especially those conditions given in the Project's Environmental Impact Assessment Report Approved by NEMA. The Contractor shall collaborate with the Environmental Impact Assessment (EIA) expert to ensure that proposed mitigation measures are adhered to during construction phase and where necessary appropriate mending up activities undertaken and the same reported back to NEMA as required.</p> <p>In particular the Contractor shall give special emphasis to control dust. The Contractor shall provide all necessary dust screens to prevent dust from the construction works affecting neighbouring property. The dust screens shall be approved by the Project Manager and be acceptable to NEMA officials. The Contractor shall also control dust on site by appropriate watering of the sources of dust.</p> <p>The Contractor shall put emphasis on controlling noise, vibrations and occupational hazards. The provisions of the Occupational Safety and Health Act No. 15 of 2007 must be strictly observed.</p>				
D	<p><u>CONTRACTORS' SUPERINTENDENCE</u></p> <p>The Contractor shall constantly keep on the Works a literate English-speaking Agent or Representative, competent and experienced in the kind of work involved, who shall give his whole time to the superintendence of the Works. Such Agent or Representative shall receive on behalf of the Contractor, directions and instructions from the Project Manager and such directions and instructions shall be deemed given to the Contractor in accordance with the conditions of the Contract. The Agent shall not be replaced without the specific approval of the Project Manager.</p> <p>It is to be a specific condition of this Contract that the successful Tenderer shall provide on Site throughout the period of construction until the Date for Practical completion a suitably qualified, experienced and competent person to ensure that the works are carried out to the standard required by the specification and detailed on the Drawings; and shall ensure that upon any termination of employment a suitable replacement is found.</p>				
<table border="1" style="width: 100%;"> <tr> <td>Preliminaries</td> <td>Carried to collection</td> <td>KShs.</td> </tr> </table>			Preliminaries	Carried to collection	KShs.
Preliminaries	Carried to collection	KShs.			

	<p><u>CONTRACTORS' SUPERINTENDENCE -(CONTINUED)</u></p> <p>Before the Tenderer's offer is accepted the Project Manager may personally interview the Contractor's proposed Representative.</p>	
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A curriculum vitae of past experience and qualifications must be provided for the Project Manager's scrutiny.

The Project Manager's decision will be final regarding the suitability of the proposed Representative.

A WATER

All water shall be fresh, clean and pure, free from earthy, vegetable or organic mater, acid or alkaline substances in solution or suspension

The Contractor shall provide at his own risk and cost all water for use in connection with the Works (including the work of Sub-Contractors). The Contractor shall provide at his own expense all temporary distribution pipes, storage tanks, metres, etc., and he shall clear away same upon completion of the Works.

B LIGHTING AND POWER

The Contractor shall provide at his own risk and cost all artificial lighting and power for use on the Works, including all Sub-Contractors' and Specialists' requirements and including all temporary connections, wiring, fittings, etc., and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection therewith.

C SAFETY

The Contractor shall comply at all times with the requirements of the Factory Act (Cap 514), Building Construction Rules, Supplement 18, Legal Notice No.40 dated April, 1984 and ensure that the safety of his workpeople and authorised visitors to the Site is protected at all times. In particular there shall be proper provision of planked footways and guard-rails to scaffolding, etc., protection against falling materials and tools and the Site shall be tidy and clear of dangerous rubbish.

The Contractor shall appoint a safety officer as required by the Factory Act and notify the Factory Inspector of his name. the safety Officer shall be on Site at all times and all directions given by the Project Manager to the Safety Officer shall be deemed to be Project Manager's Instructions, and shall be complied with promptly without additional cost to the contract.

Occupational Safety and Health Act no. 15 of 2007 must also be complied with

The Project Manager shall be empowered to suspend work on the Site should he consider these conditions are not being observed, and no claim arising from such suspension will be allowed.

Preliminaries

Carried to collection

KShs.

A PROTECTIVE CLOTHING

The Contractor shall provide all protective or any other special clothing or equipment for his employees that may be necessary.

This shall include, inter-alia, safety helmets, gloves, goggles, earmuffs, gumboots, overalls, etc., according to the type of work. The Contractor shall ensure that safety helmets are worn by all staff at all times.

B PROVISIONAL SUMS

The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A Item A7(i) of the Standard Method of measurements

Such sums are net and no addition shall be made to them for profit.

C ADJUSTMENT OF PROVISIONAL SUMS

In the final account all provisional sums shall be deducted and the value of the work properly executed in respect of them upon the Project Manager's order added

to the contract sum. Such work shall be valued as described for variations in variation clause of the conditions of contract, but should any articles for the work be executed by a Nominated Sub-Contractor, or any articles for the work be supplied by a Nominated Supplier, the Value of such work or articles shall be treated as a P.C. sum and profit and attendance comparable to that contained in the priced Bills of Quantities for similar items added.

D PRIME COST (OR P.C.) SUMS

The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(ii) of the Standard Method of Measurements

Persons or firms Nominated to execute the work or to provide and fix materials or goods as stated in the Conditions of Contract are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described as Nominated suppliers.

E ADJUSTMENT OF P.C. SUMS

In the final account all P.C. sums shall be deducted and the amount properly expended upon the Project Manager's order in respect of each of them added to the contract sum. The Contractor shall produce to the Project Manager such quotation, invoices or bills properly receipted as may be necessary to show the actual details of the sums paid by the contractor.

Items of profit upon P.C. sums shall be adjusted in the final account prorata to the amount paid.

Items of Attendance following P.C. Sums shall be adjusted prorata to the physical extent of the work executed (not prorata to the amount paid) and this shall apply though the Contractor's Bills shows a percentage in the rate column in respect of them.

Should the Contractor be permitted to tender and his tender be accepted for any work which a P.C. sum is included in these Bills of Quantities, profit and attendance will be allowed at the same rate as it would if the work were executed by a Nominated Sub-Contractor.

Preliminaries Carried to collection. KShs.

MATERIALS AND WORKMANSHIP

A GENERALLY

All materials shall be new unless otherwise directed or permitted by the Project Manager and in all cases where the quality of goods or materials is not described or otherwise specified, is to be the best quality obtainable in the ordinary meaning of the word "best" and not merely a trade signification of that word

All materials and workmanship shall, unless otherwise specified or described, conform to the appropriate British Standard Institution specification current at the date of tender.

The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also order materials to be obtained from local sources as early as necessary to ensure that such materials are on Site when required for use in the Works.

The Contractor shall be responsible for and shall replace or make good at his own expense any materials lost or damaged.

The Works throughout shall be executed by skilled workmen well versed in their respective trades.

B REJECTED WORKMANSHIP OR MATERIALS

Any workmanship or materials not complying with the specific requirements or approved samples or which have been damaged, contaminated or have deteriorated, must immediately be removed from the Site and replaced at the

	Contractor's expense, as required.		
C	<p><u>PROPRIETARY MATERIALS</u></p> <p>Where proprietary materials are specified herein-after the contractor may propose the use of materials of other manufacturer but equal quality for approval by the Project Manager.</p> <p>All materials and goods, where specified to be obtained from a particular manufacturer or supplier are to be used or fixed strictly in accordance with their instructions.</p>		
D	<p><u>SAMPLES</u></p> <p>The Contractor shall furnish at the earliest possible opportunity before work commences and at his own cost, any samples of materials or workmanship that may be called for by the Project Manager for his approval or rejection, and any further samples in case of rejection until such samples are approved by the Project Manager and such samples, when approved, shall be the minimum standard for the work to which they apply.</p>		
	Preliminaries	Carried to collection	KShs.
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A	<p><u>CONCRETE TESTS</u></p> <p>Concrete test cubes, will not be required under these works; any concrete works Must be done in the presence of the Project Manager or his/her representative</p>		
B	<p><u>OTHER MATERIAL TESTS</u></p> <p>The Contractor shall allow for providing samples of all other materials such as reinforcement bars, building sand, cement, building stone, concrete blocks, hardcore, etc, that may be requested by the Project Manager or Engineer for testing. He shall allow for the delivery of the same to the testing Laboratory(ies)), pay the testing fees and any other costs that may be required and arrange for test certificates to be sent directly to the Project Manager or Engineer by the testing Laboratory. Under no circumstances will the Contractor be paid for such tests if he does not allow for that here</p>		
	Preliminaries	Carried to collection	KShs.
<hr/>			
<u>TEMPORARY WORKS</u>			
A	<p><u>OFFICE AND SHEDS</u></p> <p>The Contractor shall erect and maintain temporary office accommodation for his own use, and ample temporary watertight sheds for the proper storage and protection of materials and for the use of artisans and remove when ordered. Floors of sheds shall be at least 150mm above ground level.</p>		
B	<p><u>SANITATION</u></p> <p>The Contractor shall provide the necessary sanitation for his staff and workmen to the requirements and satisfaction of the Health Authorities and maintain the same in a thoroughly clean and sanitary condition and pay all conservancy</p>		

	fees during the period of the Works and remove when no longer required.	
	Preliminaries	Carried to collection KShs.
A	<p><u>PLANT, TOOLS AND SCAFFOLDING</u></p> <p>The Contractor shall provide all necessary hoists, tackle, plant, vehicles, tools and appliances of every description for the due and satisfactory completion of the Works and shall remove same on completion.</p> <p>The Contractor shall provide, erect and maintain all temporary scaffolding, sufficiently strong and efficient for the due performance of the Works, including Sub-Contract works, provide special scaffolding as and when required during the Works and remove on completion and make good.</p> <p>Such scaffolding shall be constructed of tubular steel or timber of sufficient scantlings and be provided with planked footways and guard-rails to approval.</p> <p>All such plant, tools and scaffolding shall comply with all regulations whether general or local, in force throughout the period of the contract and shall be altered or adapted during the Contract as may be necessary to comply with any amendments in or additions to such regulations.</p> <p>Scaffolding is not measured hereinafter, and the Contractor must allow here</p>	
B	<p><u>EXISTING AND ADJACENT PROPERTY</u></p> <p>The Contractor must take all steps necessary to safeguard existing and adjacent property, make good at his own expense any damage to persons or property caused thereon, and hold the Employer indemnified against any such claim arising.</p> <p>The Contractor will be held fully responsible for the safety of the existing and adjacent buildings and for any damage caused in consequence of these Works. He must reinstate all damage at his own expense and indemnify the Employer against any loss.</p> <p>The Contractor must take such steps and exercise such care and diligence as to minimise nuisance from dust, noise or any other cause to the occupiers of the existing and adjacent property.</p>	
C	<p><u>LABOUR CAMPS</u></p> <p>No labour, with the exception of watchmen may be housed on the site and the Contractor shall allow for all transport and other charges in moving labour to and from site at such hours and by such routes as are permitted by the Authorities. The Contractor shall provide, erect and maintain satisfactory housing for the watchmen and shall remove same on completion of the works.</p>	
	Preliminaries	Carried to collection KShs.
A	<p><u>HOARDING</u></p> <p>The Contractor shall enclose the Site with a hoarding 2.40 metres high, with openings and gates as required, constructed of substantial timbers to approval and covered</p>	

	with new Galvanised iron corrugated sheeting painted to approval.	
B	<u>TEMPORARY ROADS</u> The Contractor shall provide where directed all temporary access roads, tracks and paths necessary for the execution of the Works, including making good when no longer in use.	
C	<u>SIGNBOARD</u> The Signboard and lettering on same for the display of the General and Sub-Contractor's names shall be of an approved size with the Employer's name painted thereon. The Project Manager's name shall be printed in letters not exceeding 100mm in height all to the Project Manager's design. No other signboard or advertising will be permitted.	
	<u>NOMINATED SUB-CONTRACTORS AND SUPPLIERS</u>	
D	<u>NOMINATED SUB-CONTRACTORS</u> The Contractor shall be responsible for Nominated Sub-Contractors in every respect and in particular it shall be the Contractor's responsibility to ensure that each Sub-Contractor commences and completes the work in such manner and is ready on the Site with his materials, labour and special plant at such times so as to conform with the progress Schedule, as specified previously, and so ensure satisfactory progress. The Contractor shall also accept liability for and bear the cost of General Attendance on Nominated Sub-Contractors which shall be deemed to include for:	
	Preliminaries	KShs.
	Carried to collection	

	<u>NOMINATED SUB-CONTRACTORS - CONTINUED</u> Allowing the use of standing scaffolding, maintenance and alteration of all scaffolding, retention of all scaffolding until such time as all relevant Sub-Contractors' works are complete and removal of all scaffolding on completion. Providing space for office accommodation, and for storage of plant and materials; allowing use of sanitary accommodation; the supply of all necessary water, and lighting; and clearing away all rubbish. The items for "General Attendance" given herein-after following P.C. Sums in respect of Sub-Contractors' work shall be deemed to include all the above. The Contractor shall also accept liability for and bear the cost of Special Attendance on Nominated Sub-Contractors which shall include for one or more of the following: Unloading, storing, hoisting, placing in position, providing power, provision of special scaffolding. The items of "Special Attendance" given herein-after following P.C. Sums shall include any one or more of the above items as set out in the particular reference. Cutting away for and making good after the work of Sub-Contractors as may be required will be measured and valued separately by the Surveyor.	
A	<u>NOMINATED SUPPLIERS</u> The cost of "Fix only" materials to be obtained from Nominated Suppliers which are covered by prime Cost or Provisional Sums shall include for taking delivery where directed, checking with invoices or indents, reporting and claiming damages for shortages and damaged goods, defraying demurrage	

	<p>signing for as having been received in good order, transporting, unloading, storing, covering and protecting until the time of fixing, unpacking, replacing anything lost or damaged, sorting, assembling, hoisting to required levels and fixing as described.</p> <p>Before placing any orders with Nominated Sub-Contractors or Nominated Suppliers the Contractors must ascertain that the terms and conditions of the quotations and the dates of delivery of materials or execution of works comply with the terms of Contract and the Progress Schedule.</p>	
B	<p><u>PRIME COST RATES</u></p> <p>Where description of items include a P.C. rate per unit this rate is to cover the nett supply of the unit only. The Contractor's price must include for the cost of the unit at the rate stated, plus waste, taking delivery, storage, fixing in position, profit and overheads.</p> <p>The actual nett cost per unit will be adjusted within the Final Account against the P.C. rate stated.</p>	
	Preliminaries	Carried to collection
		KShs.
A	<p><u>PROTECTION</u></p> <p>The Contractor shall cover up and protect from damage, including damage from inclement weather, all finished work and unfixed materials, including that of Sub-Contractors, etc., to the satisfaction of the Project Manager until the completion of the Contract, and carefully preserve all trees or bushes on or near the Site.</p>	
B	<p><u>CLEANING</u></p> <p>The Contractor shall, upon completing of the Works, at his own expense, remove and clear away all surplus excavated materials, plant, rubbish and unused materials and shall leave the whole of the Site and Works in a clean and tidy state to the satisfaction of the Project Manager, including clearing away and making good all traces of temporary access roads, offices, sheds camps, etc. Particular care shall be taken to leave clean all floors and windows and to remove all rubbish and dirt as it accumulates. The Contractor is to find his own dump and shall pay all charges in connection therewith.</p>	
C	<p><u>TRAINING LEVY</u></p> <p>The Contractor's attention is drawn to legal Notice No. 237 of October, 1971, which requires payment by the Contractor of Training Levy on all Contracts of more that 50,000/- in value and his Tender must include for all costs arising therefrom.</p>	
D	<p><u>STANDARD LEVY (STANDARDS ACT- CAP 496)</u></p> <p>The Contractor's attention is drawn to legal Notice No. 267 of 2nd June, 1990 which requires payment by the Contractor of the Standards Levy at a rate of 0.2% of the contract sum less allocation for prime cost sums and provisional sums, subject to a ceiling of KShs. 400,000.00 per annum. The Contractor must therefore include for all costs (if any) arising or resulting therefrom.</p>	
E	<p><u>NATIONAL CONSTRUCTION AUTHORITY LEVY (NCA)</u></p> <p>NCA levy, where applicable shall be paid by Kenya Power directly to the Authority and contractors SHOULD NOT price for this.</p>	
E	<p><u>DEVELOPMENT APPROVALS</u></p> <p>The contractor shall allow for all necessary National construction Authority (NCA), county government permits & approvals with regard to these works. No claim for failure Allow for all necessary permits/approvals by National construction Authority</p>	

F	<u>VALUE ADDED TAX</u>	
<p>The Contractor's attention is drawn to the Finance Act 1993 and subsequent amendments thereof which requires payment by the Contractor of Value Added Tax (VAT) on construction services rendered. Whether VAT is added at the Preliminaries Carried to collection KShs.</p>		
<u>COLLECTION</u>		
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<u>PRELIMINARIES</u>	<u>TO GRAND SUMMARY AT END OF BILLS</u>	<u>KSHS.</u>
Preliminaries		

PROPOSED KIGANJO TRANSPORT WORKSHOP & OFFICE BLOCK

100PAX CAPACITY BIO DIGESTER					
SUBSTRUCTURES (ALL PROVISIONAL)					
<p><u>Supply and install biodigester waste treatment system complete with the following items to the satisfaction of the Engineer. The system is expected to treat approximately 13,300 gallons per day (50 cubic metres per day) or 200 persons whichever is higher. The tenderer to submit the technical brochures and working calculations together with the tender for evaluation. Alternative and approved systems</u></p>					
<u>Excavation</u>					
A	Excavate pit exceeding 1.50m deep starting from ground level	CM	14		
B	Excavate pit exceeding 1.50m deep but not exceeding 3.0m deep starting from reduced level	CM	14		
C	Ditto 3.0 to 4.5 m deep	CM	9		
D	Extra over excavations for excavating in hardrock	CM	10		
E	Return fill and ram approved excavated material around foundations	CM	10		
F	Load and cart away surplus excavated material	CM	36		
G	Allow for keeping the whole excavation free from all water including spring and running water		ITEM		
H	Allow for plunking and strutting the whole excavation		ITEM		
<u>Mass concrete class 'P' in:</u>					
J	50mm thick blinding under foundations	SM	15		
<i>Carried to Collection</i>					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	<u>Reinforced insitu concrete class 25/(20mm aggregates)</u> 200mm thick floor bed	Sm	15		

B	200mm thick wall	Sm	65		
C	200mm thick suspended slab	Sm	11		
D	Strip foundation	Cm	1		
	<u>Reinforcement</u> <u>Supply and fix bars reinforcement including bending, hooks, tying wire, cutting, spacers and supporting all in position as described</u>				
E	In assorted reinforcement of various sizes	Kg	500		
F	A142 weighing 2.22kg/metre sq.(measured net no allowance made for laps)	Sm	88		
	<u>Sawn formwork to:</u>				
G	Soffites of suspended slab, Sides walls and	Sm	145		
H	Edge of bed between 150 - 225mm wide	Lm	32		
	<u>Water proof cement/sand (1:3) in:</u>				
J	20mm thick screed to sloping floor bed cross falls	Sm	6		
K	20mm thick screed trowelled hard and smooth	Sm	40		
L	20mm thick render to walls	Sm	62		
M	20mm thick render to soffites	Sm	11		
	<u>Sundries</u>				
N	Form or leave 100mm diameter hole in 200mm thick reinforced concrete wall and slab	No	10		
P	Form or leave 600 x 600mm hole in 200mm thick reinforced concrete suspended slab	No	2		
Q	600 x 600mm heavy duty double manhole cover and frame including setting cover in concrete opening and forming rebate	No	2		
	<i>Carried to Collection</i>				
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	<u>Approved filling</u> Rock and gravel backfill	Cm	10		

B	Insecticide treatment on blinded surfaces with "Termidor" termicide or other equal and approved at the rate of fipromil (250gm/ litre) after dilution with water (1:100) at the rate of 5litres per square metre all in accordance with Manufacturer's Specifications	Sm	25		
C	Single layer 1000 gauge polythene sheeting with minimum 300mm side and end laps	Sm	4		
	<u>Natural natural stone block walling jointed in cement/sand (1:3) mortar in</u>				
D	200mm thick wall	Sm	14		
	Carried to Collection				
	COLLECTION				
	From page 1				
	From page 2				
	From above				
	TOTAL FOR BIO DIGESTER CARRIED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
<u>TRANSPORT SHED</u>					
<u>Excavations and Substructures (All Provisional)</u>					
A	Mechanically excavate to reduce levels commencing from natural ground level to level the surfaces in hard rock irrespective of class and cart away to an approved dumpsite by County Government.	CM	520		
C	Excavate pit to receive stanchion bases and strip foundation commencing from reduced ground level but not exceeding 1.50M deep	CM	45		
E	Load cart away surplus excavated material away from site and dispose to areas designated by county council.	CM	36		
F	Return, fill and ram selected materials around foundations.	CM	9		
<u>Concrete.</u>					
G	<u>Mass Concrete Class X as described</u> Plain concrete (1:4:8-20mm aggregates) in 50mm thick blinding to stanchion bases and strip foundation	SM	40		
<u>Vibrated reinforced concrete class 20/25 1:2:4/25 as described in;</u>					
H	Stanchion bases, stub columns and strip foundation	CM	14		
I	200mm thick natural stone walling in c/s (1:3) mortar and hoop iron in ever alternate course	SM	98		
J	Assorted reinforcement in Stanchion bases, stub columns and strip foundation	KG	1400		
<u>Sawn soft wood formwork to;</u>					
K	Edges of concrete 225-375mm high and sides of stub columns	SM	62		
L	200mm thick compacted hardcore filling	SM	160		
M	50mm thick murrum blinding	SM	160		
N	Approved anti-termite treatmnet	SM	160		
Total carried to collection					

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	BRC mesh fabric reinforcement Ref No. A142	SM	160		
B	Vibrated reinforced concrete class 20/25 (1:2:4/25) in 150mm thick bed slab	SM	160		
C	200mm wide DPC	LM	40		
D	200mm thick dressed natural stone walling in c/s (1:3) mortar and hoop iron in ever alternate course	SM	72		
E	Extra over ditto for sraight key pointing and perpend flush with the wall	SM	72		
F	12mm thick c/s (1:3) plaster	SM	48		
G	12mm thick terrazzo finish including 32mm thick C/S (1:3) backing including diving plastic strips as directed	SM	160		
H	Ditto in 20x100mm high skirting	LM	40		
	<u>All material and workmanship shall conform with the requirement of BS 499 and shall include all necessary cutting, welding, bolting, pinning, lugging and fixing all to clients approval</u>				
I	Supply and fix I beam BS size 303mmx127mmx42kg/M including the base plate as necessary	KG	2500		
J	Ditto 19mm diameter bolt with a flat washer nut diameter 3000mm long including anchor plates as necessary	NO	60		
K	Ditto MS 100x100x5mm x9.2Kg/M thick angle section including the base plate as necessary <u>Roofing.</u> <u>The following in 5 No. portal trusses spanning 10.00M and hoisted 6.00M overall high from floor level.</u>	KG	230		
L	Supply and fix MS 100x50mm x6.71Kg/M rafters	KG	403		
M	Ditto Tie beam	KG	336		
N	Ditto struts and ties	KG	168		
P	100x50x2mm Z purlins at 1500mm centrs bolted to steel portal frames	LM	136		
Total carried to collection					

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
P	70×70×6mm angle bracings.	KG	750		
Q	200 × 6 ×200mm gusset plates	NO	15		
R	Diameter 12×1,500mm long sag rods with 75mm alternation complete with nuts and washers.	NO	18		
A	200 × 2mm thick M.S plate Fascia including welding in position as directed	LM	60		
B	Prepare and apply 2 coats of red oxide primer and 2 coats of gloss oil paint to all steel work.	SM	200		
C	Supply and fix gauge 28 pre-painted IT5 profile sheets to an approved standard colour laid with 94mm side laps and 150mm minimum end lap fixed to Z purlins including J bolts, washers, nuts and rubber caps at 600mm centers.	SM	212		
	<u>Rain water goods</u>				
	Supply and fix 180mm half round uPVC gutter including PVC gutter brackets @600mm centres	LM	17		
	E. O. ditto for joint union	NO	2		
	E. O. ditto for stopped end	NO	2		
	E. O. ditto for running outlet	NO	3		
	<u>Down pipes</u>				
	110mm uPVC pipe including brackets @600mm centres	LM	20		
	Extra over ditto downpipe for swan neck.	NO	3		
	Ditto for shoe.	NO	3		
	Total carried to collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>CABRO PAVING</u>				
A	200mm thick approved hardcore filling to make up levels & compacted mechanically	SM	300		
B	Supply and spread to level 50mm thick quarry dust as blinding to hardcore surfaces.Rate to include surface treatment for vegetation	SM	300		
	<u>Precast Concrete Works</u>				
C	Supply, lay and fix 80mm thick precast concrete paving blocks with a 49 N/mm ² cube crushing strength conforming to BS 6717 part 1 of 1986 or Kebs equivalent including mechanical surface vibration.	SM	300		
D	250x125mm Precast concrete (class 20) kerb with once chamfered edge laid on and including 450 x 100mm plain concrete (1:3:6) foundation haunched up on one side including all necessary excavations formwork etc.	LM	100		
E	Ditto but curved to radii	LM	20		
F	125x100mm precast concrete(Class 20) channels	LM	30		
G	Ditto but curved to radii	LM	20		
	<u>Pre-Cast Concrete Invert Block Drains :-</u>				
H	175 X 800mm shallow invert block drain (600mm overall) (class 20) laid on and including plain concrete (1:3:6) foundation; haunching up; including all necessary excavations formwork and disposal of excess material	LM	30		
	Total carried to collection				
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>WASHROOMS</u>				
	<u>Substructures</u>				
A	Excavate for strip foundation commencing from reduced ground level but not exceeding 1.50M deep	CM	24		
B	Load cart away surplus excavated material away from site and dispose to areas designated by city council.	CM	24		

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
C	Return, fill and ram selected materials around foundations.	CM	9		
	Concrete.				
	Mass Concrete Class X as described				
D	Plain concrete (1:4:8-20mm aggregates) in 50mm thick blinding to strip foundation	SM	32		
	Vibrated reinforced concrete class 20/25 1:2:4/25 as described in;				
E	Strip foundation	CM	4		
F	200mm thick natural stone walling in c/s (1:3) mortar and hoop iron in ever alternate course	SM	68		
G	Assorted reinforcement in Stanchion bases, stub columns and strip foundation	KG	520		
	Sawn soft wood formwork to;				
H	Edges of concrete 225-375mm high	SM	12		
I	200mm thick compacted hardcore filling	SM	40		
J	50mm thick murrum blinding	SM	40		
K	Approved anti-termite treatmnet	SM	40		
L	BRC mesh fabric reinforcement Ref No. A142	SM	40		
M	Vibrated reinforced concrete class 20/25 (1:2:4/25) in 150mm thick bed slab	SM	40		
A	150mm wide DPC	LM	42		
B	200mm thick dressed natural stone walling in c/s (1:3) mortar and hoop iron in ever alternate course	SM	64		
	150mm thick; ditto	SM	20		
C	12mm thick c/s (1:3) plaster	SM	98		
	Total carried to collection				
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
D	12mm thick terrazzo finish including 32mm thick C/S (1:3) backing including diving plastic strips as directed	SM	56		
E	Ditto in 20x100mm high skirting	LM	42		

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
F	150X200mm high precast concrete (1:2:4) ring beam including 4NO. Y10 main bars and Y8 rings@ 200mm centres including hoisting and fixing on masonry walling	LM	16		
	<u>Doors & windows</u>				
G	Fabricate and fix door overall size 800x2100mm high in mild steel SHS framing size 25x25x3mm thick and G16 M.S. plate raised panels including the door frame, padlocks tower bolts and apply 2 coats red -lead oxide primer before and 3 coats of gloss oil paints first quality and done to the clients approval and satisfaction	NO	1		
	<u>Mild steel window casement including approved window grilling, fixing metals lugs into masonry walling two coats red oxide primer;</u>				
H	Size 450x900mm high	NO	4		
	Ditto size 450x1250mm	NO	1		
	Ditto but size 450x1200mm	NO	2		
	Ditto but 900x1450mm	NO	1		
	Supply & fix approved brass window stay	NO	9		
	Ditto window fastener	NO	9		
	Ditto 5mm thick clear sheet glazing including fixing putty	SM	3		
	<u>TIMBER DOORS</u>				
	<u>framed frames and framings ; hardwood</u>				
D	150 x 50 mm; 4 No. labours; plugged door frame	LM	31		
E	100 x 25mm architraves with 4 No. labours	LM	31		
F	38 x 38mm quadrants with 3 No. labours	LM	31		
	Total carried to collection				
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
G	45mm Thick semi-solid core flush pannel doors to Door; overall size 900 x2100 mm high Iron mongery <u>Supply and fix the following to UNION catalogue or To softwood, hardwood or the like fixing with</u>	NO	8		

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	Two lever ditto	NO	8		
B	100mm steel butt hinges <i>To concrete or blockwork; fixing with bolts;</i>	PRS	11		
C	Rubber door stop complete with 38 mm rawl bolt <u>Painting and Decorations</u> <u>On wood</u> <u>Aluminium primer or other equal and approved wood primer before fixing: -</u>	NO	7		
D	Backs of frame, board, etc over 100mm but not exceeding 200mm girth	LM	31		
E	<u>Ditto n.e 100mm girth</u> <u>Knot, prime and stop; prepare and apply one undercoat and two coats of mahogany stain varnish</u>	LM	62		
F	General surfaces of timber doors over 300mm girth; external	SM	31		
G	Frames; over 100mm but not exceeding 200mm	LM	31		
H	Frames not exceeding 100mm girth: internal	LM	62		
J	Prepare and apply one undercoat and two final coats	SM	87		
P	25mm thick blockboard in bench and worktop	SM	4		
Q	25x25x1.5mm thick mild steel brackets including cutting, welding, drilling holes building into the wall and floor as necessary and three coats gloss oil	LM	6		
F	38 x 38mm quadrants with 3 No. labours	LM	31		
Total carried to collection					
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	<u>Electrical Works</u> <u>The following to be supplied & fixed including all necessary wiring (1.5mm in lighting & 2.5mm in power sockets)and conduits;</u>				
	<u>WASHROOMS</u>				
B	Two gang One way switch	NO	2		
C	4 way consumer unit complete	NO	1		

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
D	Meter box	NO	1		
E	Bulk head fitting complete with energy saver lamp	NO	4		
F	1200mm long single LED batten complete with lamp	NO	1		
WORKSHOP					
G	High Power 30W outdoor LED flood light	NO	10		
PLUMBING AND DRAINAGE INSTALLATIONS					
SANITARY FITTINGS					
Supply, deliver, install, test and commission the following sanitary appliances complete with all the accessories including all connections to the services, waste, jointing to water supply overflows, supports and all plugging and screwing to walls and floors.					
Note:					
(i) All sanitary fittings shall be in approved colour.					
(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.					
(iii) Equivalent and Approved models may be acceptable.					
A	S- Trap type ceramic water closet suite complete with high level cistern, flush pipe comprising ceramic cistern, with valve fittings including siphon, side overflow inlet connection, ball valve and reversible chrome plated flushing lever.	NO	2		
B	PWD WC Suit complete with and including grab bars, Arabic shower, WHB, all to approval	NO	1		
Urinal - Bowl					
C	Twyford clifon urinal range of 2 consisting of, pipework for range of 2, urinal bowl, Twyford dome shape waste, twyford urinal dividers.	NO	2		
Total carried to collection					
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
D	Asian type ceramic water closet suite complete with ceramic high level cistern, flush pipe comprising squatting pan, ceramic cistern, with valve fittings including siphon, side overflow, inlet connection, ball valve and reversible chrome plated flushing lever.	NO	2		

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
E	Wash hand basin Wash hand basin as Twyford "Advent 565 Countertop" size 565 x 425mm with one central tap hole Cat. No. AD4531 WH complete with 32mm diameter lift-up waste (No.WF9365CP) and 32mm plastic bottle trap (No.WF8482XX)	NO	4		
F	Self-closing pillar tap , 15mm C.P.,non concussive type pegler-Prestex Cat. No.877	NO	4		
G	Toilet bip tap as Cobra No. 206-CP, heavey duty with star handle.	NO	3		
A	Toilet Roll Holder Supply and fix jumbo toilet paper dispensers to hold jumbo toilet rolls, radius approx. 1 ft,in a heavy gauge transparent plastic casement. As per shown	NO	5		
B	Hand drier compatibe with 240V/1 phase/50 Hz power supply. To be complete with mounting plate, centrifugal fan, thermal overload 2400watts by spirally wound element, automatic resetting and thermal cutout. As Heatrae sadia or equal and approved.	NO	3		
C	Mirrors 5mm thick polished plate glass silver backed mirror with bevelled edges, size 610 x 610mm, plugged and screwed to wall with 4No. chrome plated dome capped screws. The mirror shall rest against a layer of 5mm thick foam.	NO	3		
	Flexible Tubing 15mm diameter x 300mm long flexible connectors complete with integral chrome plated angle valve for connecting the sanitary fitting to water supply. To be as Cobra or equal and approved.	NO	11		
<i>Carried to Collection</i>					
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
D	Soap Dispenser Soap Dispenser, capacity 1.136 litres complete with plastic rawl plugs, fixing screws, lock and key complete with initial fill of soap gel. The soap dispenser to be as ZALPON'S MARK 7 model, size 125 x 100 x 290mm high or approved equivalent	NO	3		

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	KITCHEN				
	Plinth				
A	1:3:6 mass concrete concrete as described in 100mm thick high plinth in kitchen	SM	4		
B	VRC class(20/20)mix 1:2:4 as described in 100mm thick kitchen worktops	SM	4		
C	32mm cement sand (1:4) screed trowelled hard and smooth and finished with cement grout as described in Surface finish to surface of plinth	SM	4		
D	30mm thick c/s backing to receive granitto tiles (m/s)	SM	6		
	<u>work tops</u>				
	<i>Approved granito floor tiles to regular or other approved pattern; bedding and jointing in cement sand (1:4) mortar; grouting with matching cement</i>				
E	10mm thick; butt joints both ways; to cement sand base (m/s); to floors level; internal	SM	6		
F	Extra over for forming sinks / basin hole	NO	1		
G	2.5mm thick block board to cabinet 2.4 m long by 400mm wide fixed appropriately to wall for both High level and Low level	LM	6		
H	Kitchen top size 3,400 x 600 x 900mm high, with acrylic top including 120mm high back splash and fascia on 25mm thick blockboard including 100mm high fascia; cupboards below and upper in 25mm thick hardwood lipped(painted blockboard; cupboards doors in 20mm malpha hinges (m/s)and 150mm brass handles.(m/s)	NO	1		
	<i>Carried to Collection</i>				
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	Kitchen sink Supply and fix Heavy gauge single drain stainless steel kitchen sink including all necessary accessories.	NO	1		
	<i>High Level Cabinets</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	The following in 25mm thick MDF boards, veneered on one side with Mahogany veneer and hardwood lipped on all edges as described.				
B	25mm Thick top, bottom and shelves.	SM	12		
C	25mm Thick sides and divisions.	SM	6		
D	Door size 550 x 600mm high.	NO	8		
	50 x 25mm Frame/bearers.	LM	28		
	Ironmongery				
	The following in "Union" or other equal and approved ironmongery,				
E	Approved malper hinges.	NO	8		
F	Approved magnetic ball catch.	NO	16		
G	25mm Diameter x 100mm long chrome plated D pull handles.	NO	8		
	<i>Carried to Collection</i>				-
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	<p><u>INTERNAL PLUMBING.</u></p> <p>PPR Pipes Supply, deliver and install Polypropylene Random (PP-R) 20 pipework to DIN 8077 with joints, couplings, reducers, tees, adaptors, pipe fixing clips etc all to DIN 16962 and DIN 16928 .Pipe jointing shall be by polyfusion or use of electric coupling. Where pipework is not chased proper anchoring using approved fixtures shall be done. No pipework shall be left exposed to the sun. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers, couplings, clippings, connectors, joints etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holder bats plugged and screwed for the proper and satisfactory functioning of the system.</p> <p>PPR PIPEWORK</p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
B	12mm dia pipe	LM	20		
C	25mm -ditto-	LM	60		
	Extra-over PPR pipework for the following:-				
	Bends				
D	12mm -ditto-	NO	25		
E	25mm -ditto-	NO	12		
	Threaded bend				
F	25mmx1/2' threaded bend	NO	10		
	Equal Tees				
G	25mm dia tee	NO	8		
H	12mm dia tee	NO	12		
I	25mmx1/2' threaded tee	NO	26		
J	12mmx1/2' threaded tee	NO	26		
	Unions				
K	25mm	NO	5		
L	12mm	NO	5		
	Reducers				
A	25x12mm reducer	NO	5		
	<i>Carried to Collection</i>				
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	Gate valves				
	25mm diameter approved medium pressure screw down full way non-rising stem wedge gate valve to BS 5154 PN 20 for series B rating, with wheel and head joints to steel tubing and complete with round male threaded transition fittings. The gate valve to be as PEGLER or approved equivalent.				
B	32mm -ditto-	NO	3		
C	12mm -ditto-	NO	6		
	Roof Water Storage Tank				
	Supply, deliver and install vertical close end plastic moulded tank of capacity 1000 litres (293gallons) and diameter 1210x 1380mm high. The tank to be assembled complete with cover and having screwed connections for inlet, outlet, overflow, 50mm medium pressure ball valve, drain pipes and any other necessary item for its proper functioning. The tank shall be mounted on a platform at the ceiling. or equal & approved				
D		NO	2		

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	INTERNAL DRAINAGE Supply, deliver and install the following uPVC and muPVC soil and waste pipework. Bidders must allow in their prices for all the various sizes of connectors, adaptors etc required for the satisfactory functioning of the drainage system				
	uPVC and muPVC pipes				
A	100mm diameter heavy gauge golden brown mUPVC pipe	LM	70		
B	32mm -ditto-	LM	8		
	Extra-over uPVC and muPVC pipework for the following:-				
	Traps				
C	100x50mm dia floor trap	NO	4		
D	Standard 300 x 300 x 450mm masonry gully trap complete with 125mm thick reinforced concrete cover.	NO	6		
	Bends				
E	100mm bend	NO	4		
F	32mm bend	NO	4		
	<i>Carried to Collection</i>				
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
A	Sweep tees 100mm dia sweep tee	NO	1		
B	Boss connectors 32x12mm boss connector	NO	6		
I	100x50mm bosss connector	NO	2		
J	Wc connectors 100mm WC connector	NO	4		
K	Allow for excavation and backfilling of 60m trench	ITEM	1		
	Allow a provisional sum of 1.4 million as contingency sum for all builders works			Sum	1,400,000
	<i>Carried to Collection</i>				1,400,000.00
ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	COLLECTION Collection from Page 1				-

ITEM	DESCRIPTION	QTY	UNIT	RATE	K.SHS
	Collection from Page 2				-
	Collection from Page 3				-
	Collection from Page 4				-
	Collection from Page 5				-
	Collection from Page 6				-
	Collection from Page 7				-
	Collection from Page 8				-
	Collection from Page 9				-
	Collection from Page 10				-
	Collection from Page 11				-
	Collection from Page 12				-
	Collection from Page 13				-
	Collection from Page 14				1,400,000
	Total for ground levels, washroom, & w/shop carried to Grand summary				1,400,000.00

ELECTRICAL SUPPLY AND INSTALLATIONS**BILL OF QUANTITIES****BILL PAGE 1:**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
					Kshs.
A	Supply and install 125A,8- way SPConsumer unit complete with all accessories for flush mounting except the outgoing MCBs.	No.	1		
B	Supply and install sub-mains to the above consumer unit in 10mm ² ,s-core PVC/SWA/PVC copper cable + 6mm ² earth.	Lm.	50		
C	Supply and install MCBs to the above distribution board as;				
	a) 32A SP	No.	1		
	b) 20A SP	No.	2		
	c) 10A SP	No.	2		
D	Supply and install 125A,4- way SPConsumer unit complete with all accessories for flush mounting except the outgoing MCBs.	No.	1		
E	Supply and install MCBs to the above distribution board as;				
	b) 20A SP	No.	1		
	c) 10A SP	No.	1		
F	Supply and install radial power point in 3 x2.5mm ² stranded PVC insulated copper conductors drawn in concealed 20mm diameter HG PVC conduits.	Lm.	90		
G	Supply and install accessories for the above power point in;				
		No.	10		
	a) 13A twin socket outlet..				

		Lm.	40		
H	Supply and install radial power point in 3 x 2.5mm ² single core PVC insulated copper conductors drawn in concealed 20mm diameter HG PVC conduits.				
J	Supply and install accessories for the above power point in;				
		No.	3		
	a) 45A DP switch.	No.	3		
	b) Automatic Hand driers 290 x163 x216mm (mediclinics)				
		Lm.	350		
K	Supply and install lighting point in 3 x 1.5mm ² single core PVC insulated copper conductors drawn in concealed 20mm diameter HG PVC conduits.				
L	Supply and install 10A switches for the above lighting points in;				
	a) 2 gang 2 way	No.	2		
	b) 3 - gang, 2 - way	No.	3		
	c) 4 gang 2 way	No.	1		
	c) Time switch/ 20 amps photo cell for flood lights	No.	1		
M	Supply and install lighting fixtures in;				
	a) Lighting fittings-600mm x 600mm LED Panel light fitting(recesed) daylight	No.	6		
	b) Lighting fittings-6wts x 11mm dia LED Panel light fitting(recesed) daylight	No.	11		
	c) Lighting fittings-1200mm 28W HPF single batten fluorescent luminaire complete with 28 watt LED tubes (frosted) as phillips or equivalent	No.	1		

	d) Lighting fittings-1200mm T8 LED water proof fitting IP65 with polycarbonate casing complete with 28 watt LED tubes (frosted) as phillips or equivalent	No.	4		
N	Lighting fittings-100 watts floodlight fitting with the following parameters. Power(w)-60-100 frequency 50 HZ-60 HZ operating voltage: AC 85- 265 DC 12/24v LED efficiency(lm/w:80, power supply efficiency>90%,power factor >0.9 color rendering index of :>70, color temperature (k)2700-6500,ambient temperature(;c) 40-50, life span 50000 hrs, IP rating : IP65,weight -12kg and should be made of high purity aluminium reflector and heat sink ,high intensity tempered glass cover,single powerful LED light source and a high efficiency LED driver.	No.	4		
O	Supply and install radial power point in 3 x 6.0mm ² single core PVC insulated copper conductors drawn in concealed 20mm diameter HG PVC conduits.	Lm.	8		
	Supply and install accessories for the above power point in;				
		No.	1		
	a) 45A cooker control unit.	No.	1		
	b) Cooker connection unit.				
	TOTAL				

**PROPOSED CONSTRUCTION OF A TRANSPORT WORKSHOP AT KIGANJO - MT. KENYA
REGION**

GRAND SUMMARY

BILL NO.	DESCRIPTION	Page No.	CONTRACTOR'S USE		OFFICIAL USE	
			K.SHS	CTS	K.SHS	CTS
1	Preliminaries @ 10%					
2	BUILDER'S WORKS - office block	Page 10 of 10				
3	BUILDER'S WORKS - Workshop/Sentry/Ground leveling	Page 15				
	BIO DIGESTER					
	Sub Total					
	Add 16% VAT					
GRAND TOTAL (Vat Incl.) K.SHS						

Amount in words:

Kenya Shillings

.....

.....

Address.....

Date.....

Tenderer's signature and stamp.....