

PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT



**BILL OF QUANTITIES FOR THE PROPOSED CONSTRUCTION OF
EMERGENCY MEDICAL DEPARTMENT BUILDING**

November, 2021

GENERAL SUMMARY

GENERAL DESCRIPTIONS	AMOUNT
BILL No 01 - PRELIMINARIES	
BILL No 02 - SPECIFICATIONS	
BILL No 03 - MEASURED WORKS {EMD BLOCK}	
BILL No 04 - PRIME COSTS AND PROVISIONAL SUMS	
SUB-TOTAL	
<u>INSURANCE CLAUSES:</u>	
<ul style="list-style-type: none"> . Clause 13 - Contractor to maintain in joint names of the Employer and Contractor, Insurance Against Loss and Damages to the works by fire, earthquakes, etc. . Clause 54 - Performance Security 	
SUB-TOTAL ----- (1)	
<u>ADD:</u> 18% Value Added Tax (VAT) -----	
SUB-TOTAL ----- (2)	
AMOUNT CARRIED TO FORM OF TENDER TShs.	

Signed by For and on behalf of

In the capacity of made this day of 2021

ITEM	DESCRIPTIONS OF WORKS	TSHS.
	<p><u>DESCRIPTION OF SITE:</u></p> <p>A. The site is located District/Councils WITHIN TANZANIA COUNTRY</p> <p>B. The Contractor shall provide and maintain any necessary temporary roads; sleeper tracks; and temporary cross over during the execution of the works; clear away the same at completion and reinstate and make good any work disturbed to the satisfaction of the Local Authority and the Employer.</p> <p>C. The Contractor shall be deemed to have visited the site and satisfied himself as to:-</p> <ul style="list-style-type: none"> i) The nature of the site ii) The amount of bush; rubbish or debris to be cleared away before commencement. iii) The nature of proximity and size of adjoining building and property. iv) The nature of existing communications by roads or otherwise. v) The means of access to the site. vi) The availability of land for the erection and positioning of all temporary structures; plant and materials necessary for the execution of the works. vii) The source of adequate supplies of labour, plant and materials for the completion of the works. <p>D. If the Contractor wishes to execute trial holes before submitting his tender; he may do so in positions to be agreed with the Employer and at his sole expenses; including the reinstatement of the ground if so required by the Employer.</p> <p>E. The whole of the site will be available to the Contractor immediately upon the issue of the order to commence.</p> <p>F. Any sand; aggregate to or other building materials shall be the property of the Employer and shall not be used in the construction of the works without the written consent of the Employer.</p> <p>G. The Contractor is to satisfy himself as to any difficulties that the site may present and to make all necessary enquiries to any point which in his opinion requires further elucidation as no claim for lack of information on any of the above will be entertained.</p>	
	TO COLLECTION TSHS.	

ITEM	DESCRIPTIONS OF WORKS	TSHS.
A.	<p><u>DESCRIPTION OF WORKS:</u> The work within this contract comprises of: Substructure, Frames ,Walls,ramp,Stairs, Roof, Doors, Windows, Service Engineering, Finishings, Decorations and External Works on Construction of Emegency Medical Department</p>	
B.	<p><u>SINGULAR AND PLURAL</u> Word importing the singular only also includes the plural.</p>	
C.	<p><u>LAW GOVERNING CONTRACT</u> The contract shall be in all respect to be constructed and operated in accordance with the law of Tanzania.</p>	
D.	<p><u>METHOD OF MEASUREMENT:</u> These Bills of Quantities have been prepared in accordance with the standard method of measurement of Building Works for East Africa first edition (metric) published by the architectural association of Kenya chapter of Quantity Surveyor Act; 1970; and applied equally to the measurement of proposed works and of variations by Quantity Surveyors.</p>	
E.	<p>Variation of 'Builder's Work' will be subject to the same amended rates of percentage of adjustment.</p>	
F.	<p><u>DEFINITIONS OF ABBREVIATIONS:</u> The Contractor should take due notice of the under mentioned abbreviations:- mm - millimetres cm - centimetres M³ - cubic meters M² - square metres M - linear metres No - Number Kg - Kilograms P.C - Prime cost</p>	
G.	<p>The Contractor shall allow for keeping all records appertaining to the work and shall keep on the site a daily diary recording weather conditions; temperature; visitors to the site, etc.</p>	
H.	<p>The Contractor is to supply to the Employer such information as he may be required in connection with the work; including statement showing the number of men employed in all trades daily; and delivery notes (stating the name of the project) for all materials delivered to the site.</p>	
TO COLLECTION TSHS.		

ITEM	DESCRIPTIONS OF WORKS	TSHS.
<p>A.</p> <p>B.</p> <p>C.</p> <p>D.</p> <p>E.</p> <p>F.</p> <p>G.</p>	<p><u>EMPLOYER’S INSPECTION:</u></p> <p>No work shall be covered up until it is inspected and approved by the Employer.</p> <p>The Employer may at any time before the end of defects liability period or during any extended time where any defect are being made good, instruct the Contractor to open up; pull down; test or expose any part of the works in order to satisfy himself as to the quality of materials or workmanship used. If in the opinion of the Employer such parts are not in strict accordance with the contract documents he may order the Contractor to remove all defective work, replace with approved materials and reinstate any such part of the works and any other disturbed at his own expenses and to the entire satisfaction of the Employer. If any such parts of the works are found to be in accordance with the contract documents the Contractor will be reimbursed with the General conditions of contract.</p> <p><u>DISTURBANCE OR NUISANCE:</u></p> <p>The Contractor shall allow for taking all necessary precautions in the order and execution of the work so as to avoid causing disturbance or nuisance to the occupants of existing buildings and those adjacent to the works and for complying with the Employer’s instructions in this respect. The Contractor shall be in tort for such nuisance and shednets.</p> <p><u>TRESPASS, DAMAGE AND CARE OF WORKS:</u></p> <p>The Contractor shall prevent any trespass on the opinion adjoining property and he shall take all reasonable precautions during the progress of the contract to prevent any damage to the adjoining property or plant or private roadways and to prevent material; plant; rubbish and debris; etc. collecting on the adjoining property or roadways.</p> <p>Should the Contractor wish to erect scaffolding or to make use of adjoining property; he shall obtain prior permission from the Employer and clear away at a completion of his work or when directed and make good any damage to his satisfaction. Except as provided for in the General conditions of contract; the Contractor; shall be held responsible for the care of works generally until their completion; including all works executed and materials deposited on the site by himself or his Sub-Contractors or supplier together with all risks arising from weather; carelessness of operatives; damages and he shall make good all such damage or loss at his own expense</p> <p>The Contractor shall be responsible for the protection of any adjacent building; boundary walls; fences; services either overhead or underground and for the making good of or paying for all damage thereto; should such be caused in the course of building operations.</p> <p>The Contractor shall allow for making good all damage to the road; kerbs; surface water channels; etc. occasioned by heavy traffic; delivery of materials and building operations generally to the entire satisfaction of the Employer and shall be responsible for observing any by law of Local Authority regarding keeping the road free from mud; filth dirt; etc, out of the execution of the works.</p>	<p>-</p>
TO COLLECTION TSHS.		

ITEM	DESCRIPTIONS OF WORKS	TSHS.
<p>A.</p> <p>B.</p> <p>C.</p> <p>D.</p> <p>E.</p> <p>F.</p> <p>G.</p> <p>H.</p> <p>J.</p>	<p><u>PROTECTION FROM THE WEATHER:</u></p> <p>The Contractor shall allow for covering up and protecting all new work from injury by weather or any other cause. Any damage; loss or expense caused by non-compliance with the clause shall be at sole risk of the contract.</p> <p><u>TOOLS, PLANT AND SCAFFOLDING:</u></p> <p>Provide all necessary concrete mixer and other plant including ladder, staging, access gangways tackle, tarpaulins, tools, moulds templates and other requisites necessary for proper executing, adapting from time to time as may be necessary and maintain all plant and equipment during the course of the contract.</p> <p>The Contractor shall allow for providing adapting from time to time as may be necessary and maintaining all scaffolding scaffold boards and temporary staging, etc, necessary for the execution of the works.</p> <p>The Contractor is to provide everything necessary for the proper execution of the works according to the true intent and meaning of the drawings; etc. whether the same may or may not be particularly shown on the drawings; specifications provided that the same is reasonably to be inferred there from.</p> <p><u>SITE ACCOMODATION:</u></p> <p>The Contractor shall provide and maintain any necessary temporary office accommodation required by himself and his Sub-Contractors suitably equipped with desks; chairs; drawing boards; and electric lighting and telephone.</p> <p>The Contractor shall provide and maintain for his workers latrine facilities washing and drinking water, first aid equipment's and shelters equipped with tables; benches and checking facilities all to the reasonable satisfaction of the workers and approved by the Employer and Health Authorities.</p> <p>The Contractor shall provide and maintain any temporary storage, shed or buildings which in his opinion are necessary for himself and his Sub-Contractors for the execution of the works.</p> <p><u>WATER FOR THE WORKS</u></p> <p>The Contractor shall allow for all necessary clean fresh water for the works, including that required by Sub-Contractors and for any temporary plumbing metres and storage facilities and pay all charges in connection therewith and clear away on completion and make good works disturbed.</p> <p>The Contractor shall allow for providing and maintaining a temporary electricity supply for the works including that required by Sub-Contractor and for any meters and fittings to give artificial lighting and power necessary for the execution of the works and pay all charges, in connection and make good all works disturbed.</p>	
TO COLLECTION TSHS.		

ITEM	DESCRIPTIONS OF WORKS	TSHS.
<p>A.</p> <p>B.</p> <p>C.</p> <p>D.</p> <p>E.</p> <p>F.</p> <p>G.</p>	<p><u>WATCHING AND LIGHTING:</u></p> <p>The Contractor shall allow for providing and maintaining any barriers; hoarding; watching; lighting which must comply with the By-laws of requirements of the Local Authority and polycy regulations and the Contractor must give all requiste policies to those authorities and provide everything necessary to protect the general public workmen; plant; materials and the whole of the works</p> <p>No advertisement will be permitted without the written authority of the Employer.</p> <p><u>SIGN BOARD:</u></p> <p>The Contractor shall provide and erect a large sized sign board on the site showing the title of the contract, the name and address of the Employer; consultant, nominated suppliers and Sub-Contractor and such information as may be required by the Employer who shall provide the sign layout and colours of the Board. The board shall be repainted when necessary and removed when no longer required.</p> <p><u>PROTECTION:</u></p> <p>The Contractor is required to protect works section until completion.</p> <p><u>TESTING:</u></p> <p>Allow for testing all the installations required to be tested and provide everything necessary for this purpose and leave the whole in perfect working order to the satisfaction of the Employer and Local Authority.</p> <p><u>REMOVING RUBBISH AND CLEANING:</u></p> <p>The Contractor shall make good all defects and injuries to the works, clean down external faces wash off stains to face work, clean off marks mortar and cement, clean windows inside and out, scrub floors, flush drains run and leave all parts of the works clean, free from rubbish and waste materials and perfect on completion.</p> <p>The Contractor shall clean and cart away all rubbish as it accumulate and keep the works in orderly condition to the satisfaction of the Employer</p>	
	<p>TO COLLECTION</p>	
	<p><u>COLLECTION</u></p> <p>Page No. 8/1/1</p> <p>Page No. 8/1/2</p> <p>Page No. 8/1/3</p> <p>Page No. 8/1/4</p> <p>Page No. 8/1/5</p>	
<p>BILL No. 01- PRELIMINARIES CARRIED TO GENERAL SUMMARY</p>		

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR. 1: SUBSTRUCTURE				
	<u>EXCAVATION AND EARTHWORK</u>				
A	Site clearance of small trees, shrubs and the like including grubbing up roots	643	m ²		
	<u>Excavating</u>				
B	Surfaces to reduce levels average 150mm deep vegetable soil and remove from site	643	m ²		
	<u>Trenches in natural ground; to receive foundations; starting from reduced level</u>				
C	Not exceeding 1.50 meters deep	219	m ³		
D	Ditto over 1.50 m not exceeding 3.0 m deep	0	m ³		
	<u>Pits; to receive foundations; starting from stripped level</u>				
E	Not exceeding 1.50 meters deep	15	m ³		
F	Extra over all kinds of excavations irrespective of depth for breaking up rock	5	m ³		
G	Backfilling; depositing and compacting in layers maximum 150mm thick impoted material around foundations	126	m ³		
H	Remove away from the site surplus excavated materials.	0	m ³		
	<u>Disposal of water</u>				
J	Keeping all excavation free from all water by pumping, bailing or other means including spring or running water		Item		
	<u>Plunking and Strutting</u>				
K	Allow for provision and subsequent removal for planking and strutting to uphold and maintain all faces of excavations		Item		
	<u>To Collection</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<u>Filling</u> Sand filling in making up levels; average 150 mm thick	133	m ³		
	<u>Hardcore and fine like</u>				
B.	150mm thick stone hardcore bed; leveled compacted and sand blinded to receive damp proof ;membrane; measured separately.	536	m ²		
	<u>Soil Sterilization</u>				
C	Chemical anti termite treatment around the building plinth	125	m		
D	Aldrin' solution applied at a rate of 7 litres per square metre	536	m ²		
	<u>Concrete works</u>				
	<u>In situ concrete plain grade 10' mix ratio (1:4:8)</u>				
E	50mm thick blinding	5	m ²		
	<u>Plain in-situ concrete; grade 15N/sq.mm nominal mix (1:3:6)</u>				
F	100mm Bed	536	m ²		
G.	Ditto to ramp	112	m ²		
H.	Foundation footing	48	m ³		
	<u>Vibrated Reinforced in-situ concrete; grade 25 nominal mix (1:11/2:3)</u>				
J.	Column bases	4	m ³		
K.	Plinth beam	23	m ³		
L	Columns	1	m ³		
	<u>Reinforcement; bars; BS 4449:1969 hot rolled round high yield steel straight or bent</u>				
M	12mm Diameter bars	1363	kg		
N	8mm Diameter bars	826	kg		
	To Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Formwork , sawn formwork</u>				
A	Vertical sides of columns;	3	m ²		
B	Ditto to vertical sides of beams	203	m ²		
C	Vertical sides of slab over 75mm not exceeding 150mm	125	m		
	<u>Walling</u>				
	<u>Concrete block B.S 2028 type A; 5N per square millimetre; solid in cement sand mortar (1:4)</u>				
D	230mm Thick wall	258	m ²		
E	Damp-proof Courses (DPC) 230mm Wide	240	m		
	<u>Damp-proof Membrane (DPM)</u>				
F.	500Gauge polythene sheet laying on blinded hardcore with 150mm sides and end laps	536	m ²		
	<u>Sundries</u>				
G.	12mm Cement and sand (1:3) external rendering to concrete block wall	57	m ²		
H.	Prepare and apply two coats of black bituminous paint on rendered or concrete surfaces, externally	57	m ²		
	<u>To Collection</u>				
	COLLECTION				
	Page 2/1/1				
	Page 2/1/2				
	Page 2/1/3				
	<u>ELEMENT NO. 1 - SUBSTRUCTURE</u>				
	<u>CARRIED TO SUMMARY</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
ELEMENT NO. 2 - FRAME					
<u>Concrete work</u>					
<u>Vibrated Reinforced in-situ concrete; grade 25 nominal mix (1:11/2:3)</u>					
A	Beams; horizontal or sloping not exceeding 15 degrees from horizontal	26	m ³		
B	Columns	2	m ³		
C	Fin wall	4	m ³		
D	150mm Thick suspended roof slab	65	m ³		
E	150mm thick roof gutter	85	m ³		
F	150mm thick side gutter wall	105	m ³		
<u>Reinforcement; bars; BS 4449:1969 hot rolled round high yield steel straight or bent</u>					
G	16mm Diameter bars	470	kg		
H	12mm Diameter bars	4948	kg		
J	8mm Diameter bars	851	kg		
K	BRC Mesh	45	m ²		
<u>Sawn formwork(Marine plywood) to.</u>					
L	Vertical sides of column	20	m ²		
M	Horizontal sides and soffits of beams	360	m ²		
N	To soffits of suspended slab	63	m ²		
P	To soffits of roof gutter	83	m ²		
Q	To sides of gutter wall	200	m ²		
R	To vertical sides fin walls	91	m ²		
S	To edge of roof gutter over 75mm but n.e 150mm high	140	m ²		
<u>ELEMENT NO. 2 - FRAME CARRIED TO SUMMARY</u>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
ELEMENT NO4: WALLS					
<u>Block Work</u>					
<u>Internal wall</u>					
<u>Solid Concrete block B.S 2028 type A; 5MPa bedded and jointed in cement/sand mortar (1:4)</u>					
A.	150mm Wall	492	m ²		
<u>External wall</u>					
<u>Solid Concrete block B.S 2028 type A; 5MPa bedded and jointed in cement/sand mortar (1:4)</u>					
B.	230mm Wall	238	m ²		
C.	150mm Wall fin wall	80	m ²		
<u>Vibrated reinforced concrete grade 25 nominal mix (1:11/2:3)</u>					
D.	230x150mm Coping with wire mesh 2.5mm and all formwork	36	m		
E.	250x100mm window Cill ditto	55	m		
<u>METAL WORKS</u>					
<u>Supply and fix weldable Mild steel to smooth edges grills walls, comprising of 75 x75 mm RHS framework and braces, 25x25mm top, bottom, vertical and horizontal bars welded to frames spaced at 150mm centre to centre including all paints</u>					
F.	Metal grillie wall	20	m ²		
ELEMENT NO4: WALLS CARRIED TO SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO 5: DOORS				
	<u>Hardwood materials</u>				
A	50x150mm Frame with one labour	283	m		
B	50x150mm Transome and Mullion with one labour	48	m		
C	25 x 25mm Glazing beads	143	m		
	<u>Hardwood Mninga or equal and approved</u>				
D	45mm thick panelled door hardwood size 1800x 2100mm double swing door;comprising of 45x100mm rebated stiles; all panel filled in with and including 25mm thick hardwood boards; {D1}	2	Nr.		
E	Ditto Size 1500 x 2100m double swing door {D2}	4	Nr.		
F	Size 1000 x 2100m Single door {D4}	3	Nr.		
G	Size 800 x 2100m Single door {D6}	2	Nr.		
	<u>Flush door</u>				
	<u>Doors: formica plastic laminated facing both sides cherry Mkongo or Mninga or equal aproved hardwood lipping to all edges; solid core flush door; formic; storm grey with hardwood edge strip; 45mm thick MDF doors</u>				
H	Size 1000 x 2100mm single doors	22	Nr.		
J	Size 800 x 2100m single door shutter	4	Nr.		
	Ironmongery; supply and fix the following as manufactured by Union ltd."or other equal and approved to hardwood with matching screws"				
K	Double Action Swing Hinges for hardwood door approx 25 - 50Kg	9	Pairs		
L	150mm Brass butt hinges.	46.5	Pairs		
M	3 Lever Mortice lock	33	Nr.		
N	Two Lever Mortice lock	4	Nr.		
	To Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><u>Clear glass</u></p> <p>5mm thick glass including beads glass over 0.5m² not exceeding 1.00m²</p> <p><u>Supply and fix weldable Mild steel to smooth edges grills comprising of 75 x75 mm RHS framework and braces, 25x25mm top, bottom, vertical and horizontal bars welded to frames spaced at 150mm centre to centre including all paints</u></p>	30	m ²		
B	Size 1500 x 2100mm double door complete with all accessories and associated Ironmongery to the Approval Project Engineer	1	Nr.		
C	Door vent size 1800 x 700mm high	2	Nr.		
D.	Size 1500 x 700mm high	4	Nr.		
E.	Size 1000 x 700m high	3	Nr.		
F.	Size 800 x 700m high	2	Nr.		
	<u>To Collection</u>				
	<u>COLLECTION</u>				
	Page 2/5/1				
	Page 2/5/2				
	<u>ELEMENT NO 5: DOORS CARRIED TO SUMMARY</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p>ELEMENT NO 6: WINDOWS</p> <p><u>Aluminium glazing approved by the Architect; single glazed combination frame and windows, 45 x 50mm Aluminium section framing, all mullions and transomes; epoxy power coat RAL 9006 finish, 6.14mm laminated glass pre assembled with stainless steel plates and screws window ironmongery, glazed beads, fiber mosquito net, rubber gaskets and backer rods and fixing to mansory or concrete grounds, sealing all around with non-hardening EPDM silicone sealant; screws bolts and fasteners</u></p> <p>A Size1800 x 1800mm high</p> <p>B Ditto, Size 1500 x 1800mm high</p> <p>C Ditto, Size 1200 x 1800mm high</p> <p>D Ditto, Size 1200 x 1050mm high</p> <p>E Ditto, Size 900 x 1800mm high</p> <p>F Ditto, Size 900 x 1050mm high</p> <p>G Ditto, Size 600 x 1050mm high</p> <p>ELEMENT NO6:WINDOWS CARRIED TO SUMMARY</p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO.7: ROOFING				
	<u>Sawn soft wood; Impregnated with Preservatives</u>				
A	50X150mm Beam	336	m		
B	50X150mm Rafters	356	m		
C	50X100mm Struts	445	m		
D	50X100mm Wall Plate	141	m		
E	50X50mm Purlins	612	m		
	<u>28 gauge IT5 resincoated roofing sheets fixed to timber purlins with 150mm end laps, 1 1/2 corrugations side laps fixed with roofing nails</u>				
F	Roof covering;sloping not exceeding 45 degrees from horizontal	599	m ²		
G	Ridge capping	60	m		
H	Valley capping	45	m		
	<u>Metal Works</u>				
J	16mm Diameter Anchor Bolts	160	No		
K	10mm thick steel plate	80	No		
	<u>Roof drainage:</u>				
L	150mm Diameter UPVC drain down pipe Class D; fixing with and including brackets and fixing accessories	55	M		
M	Extra; Drain Body.	15	No		
N	Extra; Elbow	15	No		
P	Extra; 150mm thick outlet fullbora	15	No		
	<u>ELEMENT NO. 07 - ROOFING CARRIED TO SUMMARY</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
ELEMENT NO. 08: FINISHINGS					
<u>In situ finishings</u>					
<u>Plastering in two coats steel trowelled to smooth finish internally</u>					
A	15mm To walls and columns	1087	m ²		
B	15mm to sides of beams	289	m ²		
C	15mm thick to soffits of slab, roof gutter etc.	146	m ²		
D	15mm thick to sides of gutter walls	200	m ²		
<u>Plastering in two coats steel trowelled to smooth finish externally</u>					
E	22mm To walls	355	m ²		
<u>TILES, SLAB OR BLOCK FINISHINGS</u>					
<u>Glazed ceramic wall tiles with cushion edges to BS 1281 fixed to backings with cement sand mortar and pointing with white cement</u>					
F	400 x 250 x 6mm Tiling to walls	155	m ²		
<u>Graniti GN 572 Mid Grey porcelain tiles "high quality" bedding in premixed thin set cement mortar and grouting with coloured sandless tile grout</u>					
G.	600x600x8mm; 4mm diagonally joints ways; to floors to level; to cement and sand base	457	m ²		
H.	400 x400 x 8mm; 4mm diagonally joints ways to floor level of toilets, cement and sand base	36	m ²		
J.	150mm Thick skirting	417	m		
<u>C-Tiles "high quality" to ramp and drop off area bedding in premixed thin set cement mortar and grouting with coloured sandless tile grout</u>					
K	450x450x15mm; joints ways; to floors to levels to drop off point/ramps by cement and sand base	170	m ²		
<u>Floor edge strips</u>					
L	GENESIS ESA 10(10mm high) or similar and approved, aluminium straight edge trim; junctions of flooring finishes	30	m		
<u>To Collection</u>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Weather Bars</u>				
A	6 x 25mm Brass weather bar strip at external door thresholds; in prepared groove	15	m		
	<u>Tanga stone or equal and approved other materials</u>				
B	Wall finishing materials to the extrenal façade as per drawings	43	m ²		
	<u>Beds and Backings</u>				
	<u>Cement and sand (1:4) wood floated surface finish</u>				
C.	32mm Bed to receive floor tiles	613	m ²		
D.	12mm Backing to receive wall tiles and tanga stone	198	m ²		
	<u>Gypsum plasterboard BS 1230 Pt. 2 1970 tapered wallboard self tapping galvanized drive screws</u>				
E.	9mm Thick ceiling; horizontal; internal	493	m2		
F	Cornice	415	m		
G	Extra; moulding gypsum	65	m		
H	Extra ceiling access panel	4	Nr.		
J.	Supply and fix PVC ceiling complete including PVC and corner joints, shoe nail and all accessories	100	M ²		
	<u>Sawn softwood pressure impregnated with preservatives</u>				
K.	50x50mm brandering fixed at 600mm centre to centre	1300	m		
	<u>To Collection</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>SLAB TREATMENT</u>				
	<i>Water proofing to exposed surface,concrete treatment for permanent corrosion free,water/ Moisture proofing by using by using krystol technology</i>				
	<i>Thoroughly clean concrete surfaces to remove all types of dirt; fill all visible cracks, honeycombs and holes as per krystol specification No 1; sand surface to smooth level,prepare and apply full coat of krystol T2; protect and cure properly as per manufacture's direction and krstol specification</i>				
A	To roof slabs.	65	M ²		
B	To sides and bottom of concrete gutters.	240	M ²		
	<u>WORKTOP/PARTITION</u>				
C.	Supply and fix Aluminium Partition as per Architect drawings and details at reception counter including associated finishes of mable and any other to the aproval of Architect	15	m2		
D.	Ditto worktop to kitchen/sluice/labaratory	11	m2		
E	Allow sum for LOGO for writting EMERGENCY MEDICAL DEPARTMENT to respective name of the council Hospital. As per elevation by using ALUCOBOND Materials		Sum		
	<u>To Collection</u>				
	COLLECTION				
	Page 2/8/1				
	Page 2/8/2				
	Page 2/8/2				
	<u>ELEMENT NO 08: FINISHINGS</u>				
	<u>CARRIED TO SUMMARY</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
ELEMENT NO. 09: PAINTING AND DECORATIONS					
<u>Internal works</u>					
<u>Prepare and apply one thinned coat and two full coats of wash 'n' ware paint</u>					
A	Plastered walls	1676	m ²		
B	Gypsum ceiling	493	m ²		
<u>External works</u>					
<u>Prepare and apply one thinned coat and two full coats of weather guard paint to</u>					
C	Rendered surfaces	355	m ²		
<u>Varnishing; internal work; prepare and apply three coats of clear polyurethane clear varnish; wood surfaces.</u>					
D	General surfaces	155	m ²		
E	Frames, linings and associated mouldings 200-300mm girth	331	m		
<u>ELEMENT NO. 09 : PAINTING AND DECORATIONS CARRIED TO SUMMARY</u>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<p>ELEMENT NO. 10: SANITARY WARE INSTALLATIONS</p>					
<p><u>KITCHEN SINK</u></p>					
<p><u>Stainless steel kitchen single with single drainer complete with tap hole provided on the sink the waste unit as manufactured by castleware: sink Model No. D10050A including all fixing fixtures</u></p>					
A	<p>Overall size L1000 X W500mm x D180mm bowel size L380 x W330mm</p>	1	Nr.		
<p><u>WASH HAND BASIN</u></p>					
B	<p>White vitreous wash hand basin (HWB), size 750x440x200mm complete with self closing; semi pedestal and chain stay hole; fairline ½in pillar taps with clear acrylic handles; 1¼in bead chain waste and plug; 80cm slotted tail bolt stay; isovalve servicing valves. rubber plug with slotted tail; 32mm plastic bottle trap with 75mm seal. And other accesories as manufactured by castleware or equal and approved</p>	14	No		
<p><u>SLUICE SINKS</u></p>					
C.	<p>B22362 Wall Mounted slop Hopper with Draining Board stainless steel slop hopper manufactured from Grade 304 stainless steel for the efficient and hygienic disposal of waste including draining boards, top slab, intergral flushing rim, standard outlet for PVC sewerage systems Either P-trap or S- trap and the unit must be space -effective as per manufactured to the approval of Project Manager/ Engineer</p>	2	Nr.		
<p><u>SOAP DISH</u></p>					
D.	<p>Ceramic soap dish Model A:101 as manufactured by castleware or equal aproved including fixing fixtures, fixed to the wall as per manufacturer recommendations</p>	2	Nr.		
<p style="text-align: center;"><u>To Collection</u></p>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>WC</u></p>				
A	Western type low level W.C suite vitrious china to B.S 3402 s/p-trap, 9litres flushing tank with single push button complete with all necessary accessories. "Casterware "	1	No		
B	Ditto but Eastern type as per Armitage or other approved, complete with 9 Litres flush tank and all accessories	4	No		
C	Finned and plain plastic W.C outlet connector to B.S 5627:1984	4	No		
D	Supply and install complete set of Disabled toilets with HWB,grab rails,mixer and all nesessary accessories including HWB and handrails set as per Service Engineer approval "RAK/ROCA	1	No		
E	80mm Diameter high quality plastic floor drain (ALBETONY) trap built in concrete bed.	3	No		
	<p><u>TOILET PAPER ROLL HOLDER</u></p>				
F	Wall mounted stainless Toilet paper holder Model BC 70 complete with fixing accessories as manufactured by castleware or equal and approved	5	Nr.		
	<u>To Collection</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>SHATTAF</u>				
A	Wall mounted 'trigger spray' shattaf Oasis chrome finish complete with fixing accessories as manufactured by castleware or equal and approved	6	Nr.		
	<u>BRUSH HOLDER</u>				
B	Toilet brush holder 'model : BC 60 as manufactured by castleware or equal and approved including all fixing fixtures	4	Nr.		
	<u>MIRROR</u>				
C	600 X 800 X4mm Thick mirror with JX -S501 as per castleware or other approved, fixed on lacquer with double sided self adhesive pads finished with bevelled edges.	14	Nr.		
	<u>FLOOR DRAIN</u>				
D	150 X150mm stainless steel grating ABS flange with adptor or ring complete with kerdin-fix bounding compound, all as to manufacturers recommendations	5	Nr.		
	<u>COLD WATER INSTALLATION:</u>				
	<u>IPS pipes, Class D painted with special paint; including joints in running length.Fixing in accordance with manufacture's instructions.</u>				
	<u>Distribution pipes IPS pipes including screwed screwed and socketted joints in running length:</u>				
E	25mm Diameter Polypipe, class D	40	M		
F	19mm Diameter Polypipe, class D	99	M		
G	Extra; elbow	2	No		
H	IPS Socket	1	No		
J	Ditto connectors	1	No		
K	Ditto Union	1	No		
L	Ditto Tee	1	No		
M	Ditto Reducing bush 25 x 19mm	9	No		
TO COLLECTION					

ITEM	DESCRIPTIONS OF WORKS	QTY	UNIT	RATE	AMOUNT
A.	19 mm Diameter supply IPS pipes; in blockwork chase.	45	M		
B.	Extra ditto; elbow	16	No		
C.	Ditto tee	16	No		
D.	Ditto: Union	14	No		
E	Ditto: Nipple	16	No		
F	Ditto: connector	16	No		
G	Ditto:tee connector	16	No		
H	15 mm Diameter supply IPS pipes; in blockwork chase.	40	M		
J	Extra reducing tee 19x19x15	9	No		
K	Extra; reducing bush 19x15	9	No		
L	Extra; 15mm elbow.	40	No		
M	Ditto; tee.	15	No		
N	Ditto: Nipple	50	No		
P	Ditto; socket	40	No		
Q	Ditto; tee coupling	16	No		
	<u>Flexible piping:</u>				
R	Flexible pipe to cistern	5	No		
S	Flexible pipe to Hand Wash Basin	14	No		
T	Flexible pipe to Kitchen sinks and sluice	1	No		
V	angle valve	16	No		
W	Bib tape pex 1/2	6	No		
X	Pillar tape pex 1/2	14	No		
Z	Stop cock pex 3/4	9	No		
TO COLLECTION					

ITEM	DESCRIPTIONS OF WORKS	QTY	UNIT	RATE	AMOUNT
	GENERAL ITEMS				
A	Thread seal tape	35	No		
B	Shellack	2	No		
C	Tangit	3	No		
D	Bolts pairs 12mm length 100mm or 125mm	14	No		
E	Fisher plug pairs	6	No		
	<u>UPVC pipes;Class 'E'; including fittings in running length.</u>				
F	38mm Diameter pipe; in chase in block work.	45	M		
G	Extra; Equal tee 38x38x 38mm.	10	No		
H	Extra; elbow	30	No		
J	Ditto; Plug	4	No		
K	Extra; tee	4	No		
L	Ditto; bend	2	No		
M	Ditto; socket female thread	5	No		
N	50mm pipe	30	M		
P	Ditto; bend	2	No		
Q	Ditto; socket female thread	2	No		
R	Plug	4	No		
S	Extra; tee	2	No		
TO COLLECTION					

ITEM	DESCRIPTIONS OF WORKS	QTY	UNIT	RATE	AMOUNT
	<u>SOIL AND PIPES:</u>				
	<u>UPVC pipes and fittings; Class 'B'; in running lengths; BS 4660 for underground pipes and B.S 3506 for pipes above ground.</u>				
A	100mm. Diameter pipes; fixed to walls including fixing accessories	30	M		
B	Ditto; laid in trenches.	50	M		
C	Extra; 100mm bend.	5	No		
D	Extra; 100mm Equal Double Y-Tee.	4	No		
E	Extra; 100mm Equal Tee	8	No		
F	100mm Diameter PVC vent coil.	1	No		
G	P-Trap 4'	4	No		
H	Bottle trap flexible 38mm	14	No		
	<u>Ancillaries:</u>				
	<u>Draw off taps; stop valves; copper alloy to BS 5154 or BS 1010:</u>				
J	38mm Diameter stop valve.	2	No		
K	32mm Diameter stop valve.	2	No		
L	25mm Diameter stop valve	2	No		
M	19mm Diameter stop valve	5	No		
N	13mm Diameter bib taps	14	No		
	<u>Gas pipe installation</u>				
P	50mm Heavy Gauge PVC Class C for Gas to concealed along the ceiling/concrete work, for supply Gas from Distribution room to all required room as per detailed drawing including builder's works	60	m		
TO COLLECTION					

ITEM	DESCRIPTIONS OF WORKS	QTY	UNIT	RATE	AMOUNT
	<u>EQUIPMENT:</u>				
	<u>FIRE FIGHTING INSTALLATIONS:</u>				
A	9Kg, dry powder 'NAFFCO' or any other equal and approved fire extinguishers, fixed to wall with and including brackets plugged on block work.	2	No		
B	Fire assembly point signage	1	No		
	<u>GULLY TRAPS</u>				
C	Construct a standard gully trap 300x300x300mm deep;in thick concrete block walls complete with benching and all fittings and gully trap cover	13	No		
	<u>TESTING</u>				
D	Allow for testing and commisioning the whole plumbing and drainage isntallation as per service Engineer approval	-	Item	-	
E	Builders work in connection to plumbing	-	Item	-	
	<u>SUNDRIES:</u>				
F	Allow for preparation and production of two (2) copies of 'AS BUILT DRAWINGS' of plumbing and engineering installations to Engineer's satisfaction.	-	Item	-	
	COLLECTION				
	<u>COLLECTIONS</u>				
	Page 3/10/1				
	Page 3/10/2				
	Page 3/10/3				
	Page 3/10/4				
	Page 3/10/5				
	Page 3/10/6				
	Page 3/10/7				
	<u>ELEMENT NO. 10 SANITARY WARE AND INSTALLATIONS CARRIED TO SUMMARY</u>				

S/N	DESCRIPTION OF MATERIALS	UNIT	QTY	RATE	AMOUNTS
ELEMENT NR. 11- ELECTRICAL INSTALLATION					
DISTRIBUTION SYSTEM					
A	4Ways TPN distribution board (DB 3) with 100A/300mA RCCB incomer and outgoing MCBs as shown in Schematic diagram as ABB or approved equal.	No	3		
POWER POINTS					
B	2 x 13A switch socket c/w steel box as ABB or HAGER or LEGRAND make	No	33		
C	20A DP control switch with neon indicator c/w steel box for Air Conditioners, Security lights and Hand driers as ABB or HAGER or LEGRAND make	No	12		
D	45A DP Cooker Control Unit with neon indicator c/w steel box as ABB or HAGER or LEGRAND make	No	1		
E	2.4KW Hand dryer c/w sensing unit automatically controlled as GET Ex UK	No	4		
LIGHT FITTINGS, FANS AND SWITCHES					
F	Single fluorescent fitting complete LED philips or other equal approved	No	28		
G	LED: Fluorescent fitting 60mm cassette type	No	16		
H	LIGHT FITTING TYPE Ceiling light complete with energy saver 18W	No	21		
J	80W 56" Sweep ceiling fan c/w regulator, ceiling rose and hooks as Panasonic or National or KDK of Japan.	No	1		
K	10A 1 gang 1 way flush light switch c/w steel box as ABB or HAGER or LEGRAND make	No	30		
L	10A 2 gang 1 way flush light switch c/w steel box as ABB or HAGER or LEGRAND make	No	10		
M	10A 1 gang 2 way flush light switch c/w steel box as ABB or HAGER or LEGRAND make	No	1		
N	10A 2 gang 2 way flush light switch c/w steel box as ABB or HAGER or LEGRAND make	No	1		
To collection					

S/N	DESCRIPTION OF MATERIALS	UNIT	QTY	RATE	AMOUNT
A	10A 3 gang 1 way flush light switch c/w steel box as ABB or HAGER or LEGRAND make	No	2		
B	Twin switch socket ABB or other equal approved	No	30		
C	10A 3 gang 2 way flush light switch c/w steel box as ABB or HAGER or LEGRAND make	No	10		
D	10A 4 gang 1 way flush light switch c/w steel box as ABB or HAGER or LEGRAND make	No	10		
LIGHTNING PROTECTION SYSTEM					
E	Soil treatment and interconnection to general earthing of building to meet the requirement of IEE regulations. NB: Cables for 1.5sqmm 2.5sqmm and 4sqmm should be EURO or other equal approved	Item	1		
CABLES					
F	1C x 1.5mm ² PVC copper cable				
	(i) Brown	Roll	8		
	(ii) Blue	Roll	8		
	(iii) Yellow/Green	Roll	8		
G	1C x 2.5mm ² PVC copper cable				
	(i) Brown	Roll	5		
	(ii) Blue	Roll	5		
	(iii) Yellow/Green	Roll	5		
H	1C x 4.0mm ² PVC copper cable				
	(i) Brown	M	30		
	(ii) Blue	M	30		
	(iii) Yellow/Green	M	30		
FIXED ENCLOSURES FOR CABLE RUNS					
J	20mm Dia heavy gauge PVC conduit to all lighting, fans c/w all accessories as MCL make	Pcs	210		
K	25mm Dia heavy gauge PVC conduit for Cooker Control unit, DP control switches and switch socket points and ICT related works c/w all necessary accessories as MCL make	Pcs	20		
L	75mm Dia heavy gauge PVC conduit for supply from the Main Panel Distribution Board to all necessary accessories as MCL/ PLASCO make	Pcs	10		
To collection					

S/N	DESCRIPTION OF MATERIALS	UNIT	QTY	RATE	AMOUNT
A	Accessories (Single PVC Rectangular/Square Boxes, Twin PVC Rectangular/Square Boxes, Round PVC Boxes, Cover plates,metal box single and twin, coupling,elbow,fine screw,plastic clips 22mm, bulk head light fitting) and Binding wires	Item	1		
EARTHING SYSTEM.					
B	Soil treatment and interconnection to general earthing of building to meet the requirement of IEE regulations. Two earth pits with adequate number of earth rods linked together with the earthing cables from the main distribution panel board, filled with wet charcoal/salt or bentonite powder.	Item	1		
C	Eath wire 4sqmm	Mts	60		
D	Earth rod approved copper 16mm not less than 1200mm	Nr.	6		
“AS BUILT/INSTALLED” DRAWINGS					
E	Prepare “As Built/Installed” drawings clearly indicating all conduit routes and submit in hard and soft copies.	Sets	2		
F	Prepare “As Built/Installed” drawings clearly indicating all installed fittings and submit in hard and soft copies.	Sets	2		
<u>AIR CONDITIONING</u>					
<u>Supply and Install Air conditioning as per LG or equal and approved Manufacturer by Mechanical/ Electrical Engineer</u>					
G	Smart inveter indoor wall mounted fan evaporating units with its outdoor unit, the indoor unit shall be commplete with a wireless remote controller, pipes brackets and connecting cable, including all accessories, cooling capacity 18000BTU/hr	Sets	5		
H	Smart inveter indoor wall mounted fan evaporating units with its outdoor unit, the indoor unit shall be commplete with a wireless remote controller, pipes brackets and connecting cable, including all accessories, cooling capacity 24000BTU/hr	Sets	4		
To collection					

S/N	DESCRIPTION OF MATERIALS	UNIT	QTY	RATE	AMOUNT
A	Smart inveter indoor cassette fan evaporating units with its outdoor unit, the indoor unit shall be complete with a wireless remote controller, pipes brackets and connecting cable, with and including all accessories cooling capacity 24000BTU/hr	Sets	3		
B	PVC conduits pipe sleeve class C size 2 inch in the ceiling/blockwall or duct for Airconditions, including Elbow and other connection	m	24		
To collection					
<u>COLLECTION</u>					
Page 3/11/1					
Page 3/11/2					
Page 3/11/3					
Total Cost for Electrical Carried to Summary Page					

ITEM	DESCRIPTIONS OF WORKS	QTY	UNIT	RATE	AMOUNT
<u>ELEMENT NR. 12: FOUL WATER DRAINAGE</u>					
DRAINAGE					
A.	Excavate trench to receive pipes; commencing at ground level; not exceeding 1.5m. deep; average 1000mm. deep; including grading bottom; backfilling and compacting and removal of surplus excavated material.	50	m		
SEPTIC TANK:					
B	Construct septic tank overall internal dimensions; size 4800 x 3000 x 2800mm. deep in 230mm. thick solid concrete blocks walls; 230mm. thick plain in-situ concrete grade '15' bed; 100mm. thick reinforced in-situ concrete grade '20' suspended slab reinforced with 10mm diameter x 100 x 100mm BRC square mesh; 80mm. thick baffle wall; complete with necessary pipe fittings; 4No. cast iron manholes covers and frames; vent pipe; finished to wall sides and top of slab with 15mm thick, water proof cement and sand render; including excavation back filling and removal of surplus material; all as per and shown in the drawings.	1	No		
SOAK PIT (S.P)					
C	Construct Soak pit overall size 3800mm diameter x 3500mm from invert level average depth; in 230mm. solid concrete block walls with weep holes at a height shown in the drawings; 230 x 450mm. plain insitu concrete grade '15' foundation at the bottom; 100mm. Thick suspended slab in reinforced insitu concrete grade '20' reinforced with 10mm diameter x 100 x 100mm BRC square mesh; 1No. Cast iron manhole cover and frames; vent pipe; top of slab finished with cement and sand (1:3) screed; including excavations; backfilling and removal of surplus material; all as per and shown in the drawing.	1	No		
<u>MANHOLES:</u>					
D	Construct standard manhole size 600 x 600mm average depth 1500mm deep; in 150mm. thick solid concrete blocks walls; 150mm. thick plain in-situ concrete grade '15' bed; complete with benching and all necessary pipe fittings; 1No. cast iron manholes covers and frames; finished to wall sides and top of slab with water proof cement and sand render; including excavation back filling and removal of surplus material; all as per and shown in the drawings.	13	No		
<u>ELEMENT NO. 12 FOUL WATER DRAINAGE</u>					
<u>CARRIED TO SUMMARY</u>					

ITEM	DESCRIPTIONS OF WORKS	QTY	UNIT	RATE	AMOUNT
<u>ELEMENT NR. 13: ICT INSTALLATION</u>					
A	Switch 24-port with Gigabit Uplinks	1	PC		
B	UTP CABLE Cat 6	2	PC		
C	6U data cabinet wall mounted including all accessories eg. -----	1	PC		
D	Rack Mountable UPS 1100VA	1	PC		
E	1m Patch cord	22	PC		
F	3m Patch cord	22	PC		
G	Cat 6 patch panel 24 Port	1	PC		
H	Cable manager	1	PC		
J	Dual face plate	11	PC		
K	Back Box Single (Steel)	11	PC		
L	Conduit pipe 1.0"	40	PC		
Sub Total for ICT Materials					
Add :Labour cost for subtotal 1					
Add :Profit from Sub total 1					
Add : Attendance for sub total 1					
Grand total for Element Nr. 13 ICT Installation carried to Summary Page					

ITEM	DESCRIPTION	PAGE	AMOUNT
	BILL NR.3: EMD MEASURED WORKS SUMMARY		
	ELEMENT NO. 01 - SUBSTRUCTURE	3/1/3.	
	ELEMENT NO. 02 - FRAME	3/2/1.	
	ELEMENT NO. 03 - STAIRS	NA	NA
	ELEMENT NO. 04 - WALLS	3/4/1.	
	ELEMENT NO. 05 - DOORS	3/5/2	
	ELEMENT NO. 06 - WINDOWS	3/6/1	
	ELEMENT NO. 07 - ROOF	3/7/1.	
	ELEMENT NO. 08 - FINISHINGS	3/8/3.	
	ELEMENT NO. 09 - PAINTING AND DECORATIONS	3/9/1.	
	ELEMENT NO.10: SANITARY WARE AND INSTALATIONS	3/10/7.	
	ELEMENT NO. 11: ELECTRICAL INSTALLATION	3/11/3.	
	ELEMENT NO. 12: FOUL WATER DRAINAGE	3/12/1.	
	ELEMENT NO. 13: ICT INSTALLATIONS	3/13/1.	
	BILL NO.3 - MEASURED WORKS CARRIED GENERAL SUMMARY	T.Shs	

BILL NO: 04 - PRIME COST AND PROVISIONAL SUMS

TEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p>BILL NR.4: PRIME COST AND PROVISIONAL SUM</p> <p><u>Prime Cost (PC) Sums for works to be carried out by Nominated subcontractors or Nominated suppliers</u></p> <p>A Electrical Connection and water connection</p>		Sum		
	<p>BILL NR.4- PC AND PROVISIONAL SUMS</p> <p>WORK CARRIED TO GENERAL SUMMARY</p>				