

**THE UNITED REPUBLIC OF TANZANIA  
MINISTRY OF HEALTH**



**CONTRACT AGREEMENT**

**BETWEEN**

**EXECUTIVE DIRECTOR, MIREMBE NATIONAL MENTAL HEALTH HOSPITAL**



**P. O. Box 910  
DODOMA, TANZANIA  
(THE EMPLOYER)**

**AND**

**M/S GOPA CONTRACTORS TANZANIA LIMITED  
P. O. BOX 33259,  
DAR ES SALAAM, TANZANIA  
(THE CONTRACTOR)**

**FOR**

**PROVISION OF LABOUR , EQUIPMENTS AND PRELIMINARIES WORKS FOR  
CARRYING OUT WORKS FOR PROPOSED CONSTRUCTION OF EMERGENCY  
MEDICAL DEPARTMENT (EMD) BUILDINGS FOR MIREMBE NATIONAL MENTAL  
HOSPITAL**

**CONTRACT NO: ME/007/2021-2022/HQ/W/26**

**JANUARY, 2022**

## FORM OF AGREEMENT

This AGREEMENT (hereinafter called the contract) is made this 27<sup>th</sup> day of January, 2022

Between

EXECUTIVE DIRECTOR, MIREMBE NATIONAL MENTAL HEALTH HOSPITAL, of P. O. Box 910, DODOMA, TANZANIA (hereinafter called the EMPLOYER) of the one party

And

M/S GOPA CONTRACTORS TANZANIA LIMITED, P.O. BOX 33259, DAR ES SALAAM, TANZANIA (Hereinafter called the CONTRACTOR) of the other party.

### WHEREAS

The Executive Director, Mirembe National Mental Health Hospital (Employer) has requested the Contractor to provide Labour, Equipment's and preliminaries works for Construction of Proposed Construction of Emergency Medical Department (EMD) Building for Mirembe National Mental health Hospital.

### CONTRACT VALUE

For contract price of Tshs 120,000,000/= (Tanzania Shillings One Hundred and Twenty Million only) VAT inclusive which is equivalent to 20% of the total cost of material plus preliminaries works labour cost.

**NOW THEREFORE** the parties here to hereby agree as follow: -

The following documents attached here to shall be deemed to form an integral part of this Contract:

- I. Form of Agreements
- II. Special Condition of Contract
- III. General Conditions of Contract
- IV. Negotiation Minutes
- V. Intention to Award and Letter of Acceptance.
- VI. List of proposed Key Personnel and their CVs.
- VII. List of Major items of Contractor's Equipment proposed for carrying out the Works.
- VIII. Bill of Quantity and Schedule of requirements.
- IX. Drawings

## **AGREEMENT RIGHTS**

The rights, obligations and benefits under this agreement may not be assigned or transferred to a third party without the prior written consent of the other party.

The approval or consent to transfer such right prior to written notice shall not be unreasonably withheld or denied.

## **TERMINATION**

**M/s Gopa contractors Limited** and the Executive Director, **Mirembe National Mental Health Hospital** shall be entitled to terminate this agreement by notice in writing if either party shall be in material breach of any of the provisions hereof and shall rectify such breach within seven (7) days of receipt of written notice.

The client may terminate this agreement by giving **M/s Gopa contractors Limited** thirty (30) days written notice and must state the reason for termination for written recording, subject to covering payment of all liabilities and costs incurred till date of termination.

Any termination of this agreement will be without prejudice to any other rights or remedies a party may be entitled to under this agreement or at law and will not affect any accrued rights or liabilities of either party.

## **FORCE MAJEURE**

"Force Majeure" means an event which is beyond reasonable control of a party and which makes a party's performance of its obligation under the agreement impossible or impractical or impossible under the circumstances.

If either party is unable to fulfill the obligations set out in this agreement by reason of force majeure then such a party shall give notice to the other party within thirty (30) days.

## **ARBITRATION**

If any dispute or difference arises then each party can appoint arbitrators in conformity with the provisions of the arbitration Act (CAP.15) of the laws of Tanzania.

## **CONFIDENTIALITY**

Each of the parties will protect all of the information exchanged and not disclose any such information to a third party without approval by both parties.

If one party is asked to disclose such information with the requirements of any law then that party shall promptly write a written notice so the other party may seek a protective order or take the appropriate remedies to safe guard its interests.

The party ordered to disclose confidential information shall only disclose the portion required - advised by legal counsel.

### **GOVERNING LAW**

This agreement shall be governed in accordance with the laws of Tanzania

### **PAYMENTS**

All payments shall be made in Tanzanian Shillings

**Executive Director, Mirembe National Mental Health Hospital** will pay **M/s Gopa contractors Limited** advance payment of 15% of total labour cost of **Tshs 105,000,000/=** upon submission of Advance payments Bond in the form of unconditional bank guarantee.

### **Preliminaries works payments**

All preliminaries works will be performed by the contractors at labour cost of **Tshs 15,000,000.00/=VAT incl.**

### **PENALTIES**

In the event **M/s Gopa contractors limited** breaches, the contract then the following procedures shall apply.

1. Upon discovery, shall notify the "EMPLOYER" within 24 Hours and notify them in writing.
2. Agree with the Employer on a compensation plan as a result of the breach in contract.

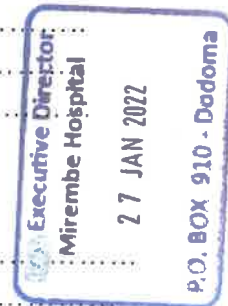
In the event Executive Director, **Mirembe National Mental Health Hospital** breaches the contract then the following procedures shall apply.

1. Upon discovery, shall notify the "CONTRACTOR" within 24 Hours and notify them in writing.

IN WITNESS WHEREOF, the here to have caused this contract to be signed in their respecting names as of the day and year first above written.

Signed by, the said **Executive Director**,  
For and on behalf of the Employer,  
**MIREMBE NATIONAL MENTAL HOSPITAL, P. O. Box 910, DODOMA**

Name... PAUL S. LAWALA  
Designation... EXECUTIVE DIRECTOR  
Signature... [Signature]  
Date... 27/01/2022



**Witness to the signature of Employer**

Name... DICKSON RAMADIAN KANANDA  
Designation... LEGAL OFFICER  
Signature... [Signature]  
Date... 27 January, 2022

Signed by, the said **Managing Director**,  
For and on behalf of the Services Provider,  
**M/S GOPA CONTRACTORS LIMITED, P. O. BOX 33259, DAR ES SALAAM.**

Name... GODFREY MOGELLAH  
Designation... MANAGING DIRECTOR  
Signature... [Signature]  
Date... 27/01/2022



**Witness to the signature of Service Provider**

Name... SEIF MAJID SEIF  
Designation... STAF  
Signature... [Signature]  
Date... 27/01/2022

**SPECIAL CONDITION OF CONTRACT**

SCC Clause	GCC Clause	Description
1.	1.1	<p>Defect Liability Period will be 365 days.</p> <p>The Employer is:  <b>Executive Director, Mirembe National Mental Health Hospital  P. O. Box 910,  Dodoma</b></p> <p>The Project Manager is  <b>Head of Building Section  Ministry of Health.</b></p> <p>The Works consist of The</p> <ol style="list-style-type: none"> <li><b>1. Building Works:</b> <ul style="list-style-type: none"> <li>• Provision of Labour, Equipment's and preliminary works for carrying out work for Proposed Construction of Emergency Medical Department (EMD) buildings for Mirembe National Mental Health Hospital.</li> </ul> </li> <li><b>2. Other activities including:</b> <ul style="list-style-type: none"> <li>• Substructure ,Super substructure, Window, Roofing, Finishing, Painting and Decoration, Electrical and fire system Installations, ICT installation, A/c and Ventilation, Plumbing and Engineering Installations.</li> </ul> </li> </ol> <p>Other works has been defined in BOQ and in Schedule of material</p> <p>The Commencement Date shall be <b>Seven (7) Days After the last signature of the signing party.</b></p> <p>The Intended Completion Date for the whole of the Works shall be <b>Six (6) Months</b></p> <p>The Site is located within <b>Mirembe National Mental Health Hospital and is defined in Drawings.</b></p>
2	2.2	Indicate whether sectional completion is specified <b>Not Applicable</b>
3	2.3	<p>List other documents that form part of the contract if any:</p> <ol style="list-style-type: none"> <li><b>1. List of proposed Key Personnel and their CVs.</b></li> <li><b>2. List of Major items of Contractor's Equipment proposed for carrying out the Works.</b></li> <li><b>3. General Conditions of Contract</b></li> <li><b>4. Special Condition of Contract</b></li> <li><b>5. Bid Price.</b></li> <li><b>6. Negotiation.</b></li> </ol>

		<p>7. <b>Letter of Award and Letter of Acceptance.</b></p> <p>8. <b>Bill of Quantity.</b></p> <p>9. <b>Specifications and Drawings.</b></p>
4	4.1	<p>The language of the Contract documents is <b>English</b></p> <p>The law that applies to the Contract is the <b>Laws of Tanzania</b></p>
5	7.1	<p>Address for communication:</p> <p>Employer:  <b>Executive Director, Mirembe National Mental Health Hospital  P. O. Box 910,  Dodoma.</b></p> <p>Consultant: <b>PSM Architecture Ltd</b></p>
6	11.1	<p>Include the Schedule of Other Contractors if any: <b>All Sub Contractors that will be nominated by the Contractor.</b></p>
7	12.1	<p>Include the Schedule of Key Personnel</p> <ul style="list-style-type: none"> <li>• <b>Project Manager</b></li> <li>• <b>Site Agent</b></li> <li>• <b>Project Engineer</b></li> <li>• <b>General Foreman</b></li> <li>• <b>Technicians</b></li> </ul>
8	16.1	<p>The minimum insurance covers shall be: <b>N/A</b></p>
9	17.1	<p>Site Investigation Reports available to the Tenderer are: <b>Not Available.</b></p> <p>However, the Contractors are expected to supplement the provided information by their own investigations to an extent, which they consider necessary for preparing a realistic tender for the envisaged works.</p>
	24.1	<p>Unless otherwise state tax payment status...<b>Not Applicable</b></p>
10.	25.4	<p>The other measures include:</p> <ol style="list-style-type: none"> <li>a. <b>Minimizing the number of migrant workers employed on the project and household in the site camp</b></li> <li>b. <b>Providing access to voluntary counseling and testing (VCT)</b></li> <li>c. <b>Providing psychological support and health care including prevention and treatment of opportunistic infections for workers infected and affected, as well as their families</b></li> <li>d. <b>Providing condoms (male and female) to workers</b></li> </ol>
11.	27.1	<p>The Site Possession Date shall be <b>Four (4) Days after both parties have signed the contract</b></p>



	30.4	Arbitration will take place in <b>Dodoma City</b> in accordance with the rules and regulations published by <b>NCC</b>
12.	31.1	Hourly rate of Fees payable to the Adjudicator is:  Types of reimbursable expenses to be paid to the Adjudicator include: <b>Not Applicable</b>
13.	32.1	Appointing Authority for the Adjudicator: <b>National Construction Council of Tanzania.</b>
	33.1	Otherwise, Responsible person for <b>security of the site is a Contractors</b>
<b>B. Time Control</b>		
14.	34.1	The Contractor shall Submit a revised Program for the Works within <b>seven (7) days of delivery of the Letter of Acceptance.</b>
15.	34.2	The period between Programme updates is <b>Thirty (30) days.</b>  The amount to be withheld Project Manager in the case the contractor does not submit an updated programme is: <b>N/A</b>
<b>C. Quality Control</b>		
16.	42.1	The Defects Liability Period is <b>365 days.</b>
<b>D. Cost Control</b>		
17.	50.7	Minimum amount of Interim Payment Certificate will be
18.	53.1	Site Possession date shall: <b>Seven (7) days after the last signature of the signing party of the Contract</b>
19.	52.1	The currency is <b>Tanzanian Shillings</b>
20.	55.1	The contract <b>is not</b> subject to price adjustment in accordance with GCC 55.
21.	56.1	The amount of retention is <b>10% is per Certificate</b>  Limit of retention: <b>5%</b>
22.	57.1	<b>(i) The amount of liquidated damages per day is: percent which should be between 0.1 percent of contract price per day</b>
23.	58.1	The Bonus for early completion is: <b>Not Applicable</b>

24.	59.1	<p>The amount of advance payment shall be <b>fifteen percent(15%)</b> of the contract sum</p> <p>Monthly Recovery of Advance Payments: <b>ten percent (10%)</b> of the amount of monthly Interim Payment Certificate.</p>
25.	60.1	<p>The Performance Security shall be the minimum amounts equivalent to <b>ten percent (10%)</b> of the contract price in the form of:</p> <p>(a) Bank Guarantee</p> <p>(b) Performance Bond</p> <p>The standard form of Performance Security acceptable to the Employer shall be <b>Unconditional Bank Guarantee</b> of the type presented in Section IX of the Tendering Documents</p>
26.	64.1	<p>Site handover date shall be <b>immediate after the date of completion of works</b></p>
<b>E. Discharge of the Contract</b>		
27.	66.2	<p>The amount to be withheld for failing to produce “as built” drawings by the date required is</p> <p>The amount to be withheld for failing to produce operating and maintenance manuals by the date required is <b>N/A</b></p>
28.	68.1	<p>The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is <b>fifteen percent (15%) of the balance works</b></p>

## **GENERAL CONDITIONS OF CONTRACT**

1. Definitions	1.1	<p>The following words and expressions shall have the meanings hereby assigned to them:</p> <p>The <b>Adjudicator</b> is the person appointed by the Appointing Authority specified in the <b>SCC</b> to resolve contractual disputes in the first instance, and as provided for in GCC 30 [Disputes Resolution] hereunder.</p> <p>The <b>Arbitrator</b> is the person appointed by the Appointing Authority specified in the <b>SCC</b> to resolve contractual disputes, and as provided for in GCC 30 [Disputes Resolution] hereunder.</p> <p><b>Bill of Quantities</b> -means the priced and completed Bill of Quantities forming part of the Tender.</p> <p><b>Compensation Events</b> are those events provided for in GCC 53 [Compensation Events]</p> <p>The <b>Completion Date</b> is the date of completion of the Works as certified by the Project Manager, in accordance with GCC 63.1 [Completion Certificate].</p> <p>The <b>Contract</b> is the agreement entered between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC 2.3 [Interpretation] below.</p> <p>The <b>Contractor</b> is the person, whether natural or legal whose tender to carry out the Works has been accepted by the Employer.</p> <p>The <b>Contractor's Tender</b> is the completed Tender document submitted by the Contractor to the Employer.</p> <p>The <b>Contract Price</b> is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.</p> <p><b>Days</b> are calendar days.</p> <p><b>Day-works</b> are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.</p>
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	<p>A <b>Defect</b> is any part of the Works not completed in accordance with the Contract.</p> <p>The <b>Defects Liability Certificate</b> is the certificate issued by Project Manager upon correction of defects by the Contractor at the end of defect liability period.</p> <p>The <b>Defects Liability Period</b> is the period stated in the <b>Special Conditions of Contract</b> and calculated from the Completion Date.</p> <p><b>Drawings</b> means the drawings of the works, as included in the contract and any additional or modified drawings issued by (or on behalf of) the employer in accordance with the contract</p> <p><b>Effective Contract date</b> is the date shown in the Certificate of Contract Commencement issued by the Employer upon fulfilment of the conditions precedent stipulated in GCC 3 [Conditions Precedent].</p> <p>The <b>Employer</b> means the person named as employer in the SCC and the legal successors in title to this person.</p> <p><b>Equipment</b> is the Contractor's machinery and vehicles brought to the Site to execute the Works.</p> <p>The <b>Commencement Date</b> is the date when the Contractor shall commence execution of the Works as specified in the <b>Certificate of Contract Commencement</b>. The Commencement Date may be revised by the Project Manager in consultation with the employer by issuing an extension of time.</p> <p>The <b>Intended Completion Date</b> is the date on which it is intended that the Contractor shall complete the Works as specified in the <b>Special Conditions of Contract</b>.</p> <p><b>Materials</b> are all supplies, including consumables, used by the Contractor for execution of the Works.</p> <p><b>Months</b> mean calendar months.</p> <p><b>Plant</b> is any integral part of the Works that shall have a mechanical electrical, chemical, or biological function.</p>
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	<p>The <b>Project Manager</b> is the person named in the <b>Special Conditions of Contract</b> (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.</p> <p>The <b>Site</b> is the area where works are to be executed as specified in the <b>SCC</b>.</p> <p><b>Site Investigation Reports</b> are factual and interpretative reports about the surface and subsurface conditions at the Site that were included in the Tendering documents as indicated in the SCC.</p> <p><b>Specification</b> means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.</p> <p>A <b>Subcontractor</b> is a person, whether natural or legal, who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.</p> <p><b>Temporary Works</b> are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.</p> <p>A <b>Variation</b> is an instruction given by the Project Manager in consultation with the Employer, which varies the Works.</p> <p><b>Force Majeure</b> means an unforeseeable event which is beyond reasonable control of either Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances. For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm,</p>
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		<p>flood, epidemics, or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation.</p> <p>The <b>Works</b> are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the <b>SCC</b>.</p>
2. Interpretation	2.1	In interpreting these Conditions of Contract headings and marginal notes are used for convenience only and shall not affect their interpretations unless specifically stated; references to singular include the plural and vice versa; and masculine include the feminine. Words have their ordinary meaning under the language of the Contract unless specifically defined.
	2.2	If sectional completion is specified in the <b>Special Conditions of Contract</b> , references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
	2.3	<p>The documents forming the Contract shall be interpreted in the following order of priority:</p> <ol style="list-style-type: none"> <li>(1) Form of Agreement,</li> <li>(2) Special Conditions of Contract,</li> <li>(3) General Conditions of Contract,</li> <li>(4) Letter of Acceptance,</li> <li>(5) Certificate of Contract Commencement,</li> <li>(6) Specifications,</li> <li>(7) Drawings,</li> <li>(8) Bill of Quantities,</li> <li>(9) Contractor's Tender, and</li> <li>(10) Any other document listed in the Special Conditions of Contract as forming part of the Contract.</li> </ol>

3. Conditions Precedent	3.1	<p>Having signed the Contract, it shall come into effect on the date on which the following conditions have been satisfied:-</p> <p>a) Submission of performance Security in the form specified in the SCC; and</p> <p>b) Furnishing of Advance Payment (if any) Unconditional Guarantee.</p>
	3.2	<p>If the Employer is satisfied that each of the conditions precedent in this contract has been satisfied (except to the extent waved by him, but subject to such conditions as he shall impose in respect of such waiver) he shall promptly issue to the contractor a certificate of Contract commencement, which shall confirm the start date.</p>
	3.3	<p>If the Conditions precedent stipulated on GCC 3.2 is not met by the date specified in the <b>SCC</b> this contract shall not come into effect;</p>



4. Language and Law	4.1	The language of the Contract and the law governing the Contract are stated in the <b>SCC</b> .
5. Project Manager's Role	5.1	Except where otherwise specifically stated, the Project Manager will supervise execution of the contract between the Employer and the Contractor. The Project Manager shall have no authority to amend the contract.
6. Delegation	6.1	The Project Manager may, upon prior written consent of the employer and after notifying the contractor, delegate any of his duties and responsibilities to other people except to the Adjudicator, and may cancel any delegation after notifying the Contractor.
7. Communications	7.1	Communications between the Parties to the Contract shall be effective only when in writing whether in hard or electronic form that provides record of the content of the communication. A notice shall be effective when in writing only when it is delivered at the address specified in the <b>SCC</b> .
8. Sub-contracting	8.1	The Contractor may subcontract with the approval of the Project Manager, subject to consultation with the Employer. Subcontracting shall not alter the Contractor's obligations
9. Assignment	9.1	The Contractor shall not assign, transfer, pledge or make other disposition of this Contract or any part thereof or any of the contractor's rights, claim or obligation under this Contract without the prior written approval of the Employer.
10. Liability of Joint Venture	10.1	<p>If the Contractor constitutes a joint venture, consortium or other unincorporated grouping of two or more persons:</p> <ul style="list-style-type: none"> <li>(a) These persons shall be jointly and severally liable to the Employer for the performance of the Contract;</li> <li>(b) These person shall notify the Employer of their leader who shall have the authority to bind the Contractor and each of these persons; and</li> <li>(c) The Contractor shall not alter its composition or legal status without the prior consent of the Employer.</li> </ul>

11. Other Contractors	11.1	The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as referred to in the <b>SCC</b> . The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.
12. Personnel	12.1	The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the <b>SCC</b> , to carry out the functions stated in the Schedule or other personnel approved by the Project Manager. The Project Manager will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel listed in the Schedule.
	12.2	If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons for, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

13. Employers and Contractor's Risks	13.1	The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.
14. Employers Risks	14.1	<p>From the Commencement Date until the Defects Correction Certificate has been issued, the following are Employer's risks:</p> <p>(a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to:</p> <p>(i) Use or occupation of the Site for the purpose of the Works, which is the unavoidable result of the Works or</p> <p>(ii) Negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.</p> <p>(b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design.</p>
	14.2	<p>From the Completion Date until the Defects Correction Certificate has been issued, the risk of loss or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to:</p> <p>(a) a Defect which existed on the Completion Date,</p> <p>(b) An event occurring before the Completion Date, which was not itself an Employer's risk, or</p> <p>(c) The activities of the Contractor on the Site after the Completion Date.</p>

15. Contractor's Risks	15.1	From the Commencement Date until the Defects Correction Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.
16. Insurance	16.1	<p>The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Commencement Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the <b>SCC</b> for the following events which are due to the Contractor's risks:</p> <p>(a) Loss of or damage to the Works, Plant, and Materials;</p> <p>(b) Loss of or damage to Equipment;</p> <p>(c) Loss of or damage to property (except the Works, plant, Materials, and Equipment) in connection with the Contract; and</p> <p>(d) Personal injury or death.</p>
	16.2	Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Commencement Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
	16.3	If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
	16.4	Alterations to the terms of an insurance shall not be made without the written approval of the Project Manager.
	16.5	Both parties shall comply with any conditions of the insurance policies.

17. Site Investigation Reports	17.1	The Contractor shall, in executing the contract, rely on Site Investigation Reports referred to in the <b>SCC</b> and any supplemented information available to the Contractor.
18. Queries about Implementation of the Contract	18.1	The Project Manager will clarify queries on all Contractual matters.
19. Contractor to Execute the Works	19.1	The Contractor shall execute and install the Works in accordance with the terms and conditions of the Contract.
20. Commencement and Completion of Works	20.1	The Contractor may commence execution of the Works by the Commencement Date and shall carry out the Works in accordance with the Works Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.
21. Approval by the Project Manager	21.1	The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, who is to approve them if they comply with the Specifications and Drawings.
	21.2	The Contractor shall be responsible for design of Temporary Works.
	21.3	The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
	21.4	The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.
	21.5	All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager.
22. Protection of the environment	22.1	The Contractor shall take all reasonable steps to protect the environment and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
	22.2	The Contractor shall ensure that emissions, surface discharges and effluent from his activities shall not exceed limits prescribed in relevant environmental laws.

23. Labour Laws	23.1	The Contractor shall comply with all the relevant labour laws applicable in the United Republic of Tanzania, including laws relating to workers employment, social security, working hours, health, safety, welfare and immigration.
	23.2	The Contractor shall require his employees to obey all applicable laws, including those concerning safety at work.
24. Taxes and Duties	24.1	The Contractor, Sub-contractors and Personnel shall pay such taxes, duties, fees and other impositions as may be levied under the Laws of Tanzania unless otherwise stated in the <b>SCC</b> .
25. Health and Safety	25.1	The Contractor shall at all times take all reasonable precautions to maintain the health and safety of his personnel and the public as per the governing occupational, health and safety laws
	25.2	The Contractor shall ensure that first aid facilities are available at all times at the site and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics
	25.3	The Contractor shall notify the Employer details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety, and welfare of persons, and damage to the property, as the Employer may reasonably require.
	25.4	The Contractor shall conduct an HIV-AIDS awareness programme, and shall take other such measures as specified in the <b>SCC</b> to reduce the risk of transfer of HIV virus between and among Contractor's personnel, the Employers Staff and the surrounding community.
26. Discoveries	26.1	Anything of historical or other interest or of significant value unexpectedly discovered on, in, or under the land at the Site shall be the property of the Employer.
	26.2	The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.
	26.3	The Contractor shall take reasonable precautions to prevent his workers or any other persons from



		damaging such discoveries and shall immediately upon discovery thereof and before removal acquaint the Project Manager of such discovery and carry out at the expense of the Employer the instructions of the Project Manager.
27. Possession of the Site	27.1	The Employer may give possession of whole or parts of the Site to the Contractor as stated in the <b>SCC</b> . If possession is not given by the date stated in the <b>SCC</b> , the Employer will be deemed to have delayed the start of the relevant activities, and this will be a Compensation Event.
28. Access to the Site	28.1	The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
29. Instructions, inspections and audits	29.1	The contractor shall comply with instructions given by the Project Manager in writing on any matter related to the contract
	29.2	The Contractor shall permit the Government, of the United Republic of Tanzania to inspect the Contractor's accounts and records relating to the performance of the Contract and to have them audited by auditors appointed by the Government of the United Republic of Tanzania if so required.
30. Disputes Resolution	30.1	In the event of any dispute arising out of this contract, either party shall issue a notice of dispute to settle the dispute amicably. The parties hereto shall, within twenty eight (28) days from the notice date, use their best efforts to settle the dispute amicably through mutual consultations and negotiation. Any unsolved dispute may be referred by either party to an adjudicator nominated by the appointing Authority specified in the <b>SCC</b> .
	30.2	After the dispute has been referred to the adjudicator, within 30 days, or within such other period as may be proposed by the Parties, the Adjudicator shall give its decision. The rendered decision shall be binding to the Parties.

	30.3	If either Party is dissatisfied with the Adjudicator's decision may, within days specified in the <b>SCC</b> refer the dispute for arbitration. If either party within the period mentioned in the SCC has not referred the matter for arbitration the decision shall become final and binding to the Parties.
	30.4	The arbitration shall be conducted in accordance with the arbitration procedure published by the Institution named and in the place shown in the <b>SCC</b> .
31. Fees and Costs of Adjudicator	31.1	The rate of the Adjudicator's fee and administrative costs of adjudication shall be borne equally by the Parties. The rates and costs shall be in accordance with the rules of the Appointing Authority. In conducting adjudication to its finality each party shall bear its incurred costs and expenses.
32. Replacement of Adjudicator	32.1	Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator will be appointed by the Appointing Authority.
33. Security of the Site	33.1	Unless otherwise stated in the <b>SCC</b> , (a) the Contractor shall be responsible for keeping unauthorised persons off the site, and  (b) authorised persons shall be limited to the Contractor's and Employer's personnel, and to any other personnel and other Contractor notified to the Contractor by the Project Manager or Employer.
		<b>B. Time Control</b>
34. Program	34.1	Within the time stated in the <b>SCC</b> , the Contractor shall submit to the Project Manager for approval of the Work Program showing the method(s), arrangements, order and timing for all the activities of the Works.
	34.2	The Contractor shall submit to the Project Manager for approval an updated Works Program at intervals not longer than the period stated in the <b>SCC</b> . If the Contractor does not submit an updated Works Program within this period, the Project Manager may withhold the amount stated in the <b>SCC</b> from the next payment



		certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.
	34.3	An update of the Works Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
	34.4	The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events if any.
35. Extension of the Intended Completion Date	35.1	The Employer may extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.
	35.2	The Employer shall, within twenty one (21) days of receipt of application for extension of the Intended Completion Date by the Contractor, decide whether or not to grant the extension. The application by the Contractor shall be granted only when supported by full information of a compensations event(s) or variation.
	35.3	In the event the Contractor has not issued an early warning notice of a delay or has failed to cooperate in dealing with a delay, such a delay or failure may be a ground for not granting the extension of the Intended Completion Date.

36. Acceleration	36.1	When the Employer wants the Contractor to finish the Works before the Intended Completion Date, the Project Manager will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts the said proposals, the Intended Completion Date will be adjusted accordingly and confirmed by both the Employer and the Contractor.
	36.2	in the event the Contractor's priced proposals for acceleration of the Works are accepted by the Employer, they shall be incorporated in the Contract Price and treated as a Variation.
37. Delays Ordered by the Project Manager	37.1	The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.
38. Management Meetings	38.1	Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
	38.2	The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.
39. Early Warning Notice	39.1	The Contractor shall give an early warning notice to the Project Manager at the earliest opportunity of specific likely future event(s) or circumstance(s) that may adversely affect the quality of the Works, increase the Contract Price or delay the execution of the Works. Upon receipt of the said Notice, the Project Manager may require the Contractor to provide an estimate of the expected effect of the future event(s) or circumstance(s) on the Contract Price and Intended Completion Date or Completion Date as the case may be. The estimate shall be provided by the Contractor as soon as reasonably possible.
	39.2	The Contractor shall cooperate with the Project Manager in making and considering proposals on how

		the effect of such an event(s) or circumstance(s) could be avoided or reduced by anyone involved in the Works and in carrying out any resulting Instruction of the Project Manager.
		<b>C. Quality Control</b>
40. Identifying Defects	40.1	The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities.
	40.2	The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.
41. Tests	41.1	The Project Manager may instruct the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and in the event the test shows that it does, the Contractor shall pay for the test and any samples thereof. If there is no Defect, the test shall be a Compensation Event.
42. Correction of Defects	42.1	The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period stated in the <b>SCC</b> , which begins from the Completion Date. .
43. Extension of Defect Liability Period	43.1	Every time notice of a Defect is given, the Contractor shall correct the notified Defect(s) within the period of time specified in the Project Manager's notice.
	43.2	The Defects Liability Period may be extended by the Project Manager for as long as Defects remain to be corrected.
44. Uncorrected Defects	44.1	In the event the Contractor has not corrected a Defect(s) within the time specified in the Project Manager's notice, the Project Manager will assess the cost of having the Defect corrected, including any other related cost(s) and the Contractor will pay the said cost.
		<b>D. Cost Control</b>

45. Bill of Quantities	45.1	The Bill of Quantities shall contain items for the construction, installation, testing, and commissioning work to be done by the Contractor.
	45.2	The Bill of Quantities is used to calculate the Contract Price. The Contractor shall be paid for the quantity of the work done at the rate in the Bill of Quantities for each item.
46. Changes in the Quantities	46.1	If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.
	46.2	The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Employer.
	46.3	If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.
47. Variations	47.1	All Variations shall be included in updated Work Programs produced by the Contractor.
48. Payments for Variations	48.1	The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.
	48.2	If the work in the Variation corresponds with an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work is not above the limit stated in GCC 44.1 [Uncorrected Defects] or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of Work.

	48.3	If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
	48.4	If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
	48.5	The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning notice.
49. Cash Flow Forecasts	49.1	When the Works Program is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.
50. Payment Certificates	50.1	The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
	50.2	The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor within twenty-eight (28) days from the receipt of the statement.
	50.3	The value of work executed shall be determined by the Project Manager.
	50.4	The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.
	50.5	The value of work executed shall include the valuation of Variations, Compensation Events and Variation of Price.
	50.6	The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any

		item previously certified in any certificate in the light of later information.
	50.7	The Project Manager shall not be bound to certify any payment, if the net amount, after all retentions and deductions would be less than minimum amount of Interim Payment Certificate stated in the <b>SCC</b> .
51. Payments	51.1	Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest issued by the Bank of Tanzania on the date of Contract signature for each of the currencies in which payments are made.
	51.2	If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.
	51.3	Unless otherwise stated, all payments and deductions will be paid or charged in the proportions of currencies comprising the Contract Price.
	51.4	Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.



52. Currencies	52.1	The currency of payment shall be stated in the SCC.
		Where payments are to be made in currencies other than the Tanzania Shillings, the exchange rates to be used for calculating such amounts shall be the Bank of Tanzania exchange rate prevailing on the date of contract signature.
53. Compensation Events	53.1	<p>The following shall be Compensation Events:</p> <ul style="list-style-type: none"> <li>(a) The Employer does not give access to a part of the Site by the Site Possession Date stated in the <b>Special Conditions of Contract</b>.</li> <li>(b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.</li> <li>(c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.</li> <li>(d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.</li> <li>(e) The Project Manager unreasonably does not approve a subcontract to be let.</li> <li>(f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to Tenderers (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.</li> <li>(g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.</li> <li>(h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.</li> <li>(i) The advance payment is delayed.</li> </ul>

		<p>(j) The effects on the Contractor of any of the Employer's Risks.</p> <p>(k) The Project Manager unreasonably delays issuing a Certificate of Completion.</p> <p>(l) Other Compensation Events described in the Contract or determined by the Project Manager shall apply.</p>
	53.2	If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall, upon consultation with Employer, decide whether and by, how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.
	53.3	As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, if agreed by the Employer, the Contract Price may be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager in consultation with Employer shall adjust the Contract Price based on the Project Manager's own forecast.
	53.4	The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning notice or not having cooperated with the Project Manager.
54. Effect of Changes in Tax Laws	54.1	The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of Tenders for the Contract and the date of the last Completion certificate.
	54.2	The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC 55 [Price Adjustment].
	54.3	In the event that the Laws Governing Taxes, Duties and other levies have changed between the signature



		date and the last completion certificate thereby affecting the Contract Price, the Employer and the Contractor, shall mutually adjust the contract price accordingly.
55. Price Adjustment	55.1	The amounts payable to the Contractor, pursuant to GCC 50.1 [Payment Certificate], may be adjusted in respect of the rise or fall in the cost of labour, Contractor's Equipment, Plant, materials, and other inputs to the Works, by applying to such amounts the formulae prescribed in this clause.
	55.2	To the extent that full compensation for any rise in costs to the Contractor is not covered by the provisions of this or other clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of such other rise of costs.
	55.3	<p>The adjustment to be applied to amount payable to the Contractor as certified in Payment Certificates shall be determined by a formula for each of the currencies in which the Contract Price is payable. No adjustment is to be applied to work valued on the basis of Cost or current prices. The formulae shall be as follows;</p> <p>where;</p> <p><b>P<sub>n</sub></b> is a price adjustment factor to be applied to the amount in each specific currency for the payment of the work carried out in the subject month, where such variations and daywork are not otherwise subject to adjustment;</p> <p><b>a</b> is a constant, specified in the <b>Appendix to Tender</b>, representing the nonadjustable portion in contractual payments;</p> <p><b>b, c, d, etc.</b>, are weightings or coefficients representing the estimated proportion of each cost element (labor, materials, equipment usage, etc.) in the Works or sections thereof, net of Provisional Sums, as specified in the <b>Appendix to Tender</b>; the sum of a, b, c, d, etc., shall be one;</p> <p><b>L<sub>n</sub>, M<sub>n</sub>, E<sub>n</sub>, etc.</b>, are the current cost indices or reference prices of the cost elements in the specific</p>

	<p>currency of origin for month "n," determined pursuant to CGC 55.5, applicable to each cost element; and</p> <p><b>Lo, Mo, Eo</b>, etc., are the base cost indices or reference prices corresponding to the above cost elements at the date specified in GCC 55.5</p> <p>The value of net work done, certified by the Project Manager, in any monthly Interim or Final Certificate as payable by the Employer to the Contractor before deduction of any retention money shall be increased or decreased by an amount of 'F'.</p> <p>where;</p> <p>The effective value <b>Pc</b> of work done which is to be subjected to increase or decrease shall be the difference between:</p> <p>(i) the amount which, in the opinion of the Project Manager, is due to the Contractor under GCC 44 [Uncorrected Defects] (before deduction of retention money and before deducting sums previously paid on account) less:</p> <ul style="list-style-type: none"> <li>• any amount for payment or repayment of any advance payment;</li> <li>• any amount for materials on site (if any);</li> <li>• any amounts for nominated sub-contractors (if any)</li> <li>• any amounts for any other items based on actual cost or current prices; or</li> <li>• any sums for increase or decreases in the Contract Price paid under GCC 55.3</li> </ul> <p>and</p> <p>(ii) the amount calculated in accordance with (i) above of GCC 55.3 and included in the last preceding statement.</p>
	<p>55.4 The sources of indices shall be those listed in the <b>Appendix to Tender</b>, as approved by the Project Manager. Indices shall be appropriate for their purpose and shall relate to the Contractor's proposed source of supply of inputs on the basis of which his Contract Price and expected foreign currency requirements shall have been computed. As the proposed basis for price adjustment, the Contractor shall have submitted with his Tender the tabulation of Weightings and Source of</p>

		Indices in the <b>Appendix to Tender</b> , which shall be subject to approval by the Project Manager.
	55.5	The base cost indices or prices shall be those prevailing on the day 28 days prior to the latest date for submission of Tenders. Current indices or prices shall be those prevailing on the day 28 days prior to the last day of the period to which a particular Interim Payment Certificate is related. If at any time the current indices are not available, provisional indices as determined by the Project Manager will be used, subject to subsequent correction of the amounts paid to the Contractor when the current indices become available
	55.6	If the Contractor fails to complete the Works within the time for completion prescribed under GCC 20 [Commencement and Completion of Works] adjustment of prices thereafter until the date of completion of the Works shall be made using either the indices or prices relating to the prescribed time for completion, or the current indices or prices, whichever is more favourable to the Employer, provided that if an extension of time is granted pursuant to GCC 35 [Extension of the Intended Completion Date], the above provision shall apply only to adjustments made after the expiry of such extension of time.
	55.7	The weightings for each of the factors of cost given in the <b>Appendix to Tender</b> shall be adjusted if, in the opinion of the Project Manager, they have been rendered unreasonable, unbalanced, or inapplicable as a result of varied or additional work already executed or instructed under GCC 48 [Payment for Variations] or for any other reason.
56. Retention	56.1	The Employer shall retain from each payment due to the Contractor the proportion stated in the <b>Special Conditions of Contract</b> . The total amount of retention shall not exceed the amount specified in the <b>Special Conditions of Contract</b>
	56.2	On completion of the whole of the Works, half the total amount retained shall be repaid to the Contractor and the other half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected.

	56.3	On completion of the whole Works, the Contractor may substitute retention money with an 'on demand" or unconditional Bank guarantee.
57. Liquidated Damages	57.1	The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the <b>SCC</b> for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the maximum amount of performance security stated in the <b>SCC</b> . The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.
	57.2	Where the Project Manager, after assessment of work progress, upon satisfaction that the Contractor will not complete the works within the contract period, may issue a notice to the Contractor requiring the payment of liquidated damages pursuant to GCC 57.1
	57.3	If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC 51.1 [Payments]

58. Bonus	58.1	If stated in the <b>Special Conditions of Contract</b> the Contractor shall be paid a Bonus calculated at the rate per calendar day for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.
59. Advance Payment	59.1	If stated in the SCC the Employer shall make advance payment to the Contractor of the amounts stated in the <b>SCC</b> by the date stated in <b>the SCC</b> , against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest will not be charged on the advance payment.
	59.2	The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.
	59.3	The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, as specified in the <b>SCC</b> following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

60. Performance Securities	60.1	The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable as specified in the TDS and <b>SCC</b> and in accordance with the conditions of contract.
	60.2	The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Completion Certificate in the case of a Performance Bond
	60.3	Where circumstances necessitate the amendment of the contract after signature, and such amendment is effected, the Employer shall require the Contractor to provide additional Performance Security to cover any cumulative increase of more than ten percent of the Initial Contract Price.
61. Day-works	61.1	If applicable, the Day-works rates in the Contractor's Tender shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.
	61.2	All work to be paid for as Day-works shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.
	61.3	The Contractor shall be paid for Day-works subject to obtaining signed Day-works forms.
62. Cost of Repairs	62.1	Loss or damage to the Works or Materials to be incorporated in the Works between the Commencement Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.
		<b>E. Discharge of the Contract</b>



63. Completion Certificate	63.1	The Contractor shall request the Project Manager to issue a certificate of Completion of the Works, and the Project Manager will so issue upon satisfaction that the work is completed.
64. Site Hand Over	64.1	When the Certificate of Completion is issued by the Project Manager, the Contractor shall handover the site and the works to the Employer within time specified in the <b>SCC</b>
65. Final Account	65.1	Upon the expiry of the defect liability period, the Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract. The Project Manager shall, within fifty six (56) days, verify the account and, upon satisfaction, certify any final payment due to the Contractor and thereafter issue a defect liability certificate.
	65.2	In the event the Project Manager is not satisfied with the Account submitted by the Contractor pursuant to sub-GCC 65.1, shall within 56 days issue a schedule of correction. If the final account remains unsatisfactory after it has been re-submitted, the Project Manager shall, upon consultation with the Employer, decide on the amount payable to the Contractor and issue a payment certificate.
66. Operating and Maintenance Manuals	66.1	The Contractor shall supply to the Employer the "as built" Drawings and/or operating and maintenance manuals and any other related documents by the handover period stipulated pursuant to GCC 64.1 [Site Hand Over].
	66.2	If the Contractor does not supply the Drawings and/or manuals stated in GCC 66.1 by the dates specified pursuant to GCC 64.1 [Site Hand Over] or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount stated in the <b>Special Conditions of Contract</b> from payments due to the Contractor.
67. Termination	67.1	The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
	67.2	Fundamental breaches of Contract shall include, but

	<p>shall not be limited to, the following:</p> <ul style="list-style-type: none"> <li>a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Works Program and the stoppage has not been authorized by the Project Manager;</li> <li>b) the Project Manager instructs the Contractor in writing to delay the Works progress , and the instruction is not withdrawn in writing within 28 days;</li> <li>c) contractor's failure to submit performance security within the time stipulated in the SCC;</li> <li>d) the Employer or the Contractor is declared bankrupt or goes into liquidation other than for a reconstruction or amalgamation;</li> <li>e) a payment certified by the Project Manager is not paid by the Employer to the Contractor after 84 days from the date of the Project Manager's certificate;</li> <li>f) Failure of the Contractor to correct the defect after lapse of time specified in the notice to correct defects issued by the Project Manager.;</li> <li>g) where the Contractor fails to furnish and maintain the required Site Security pursuant to GCC 33.1 [Security of the Site];</li> <li>h) The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the <b>SCC</b>; and</li> <li>i) if the Employer determines, based on the reasonable evidence, that the Contractor has engaged in corrupt, coercive, collusive, obstructive or fraudulent practices, in competing for or in executing the Contract.  For the purpose of this paragraph:  "corrupt practice means the offering, giving receiving or soliciting of anything of value to</li> </ul>
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		<p>influence the action of a public officer in the procurement process or contract execution;</p> <p>“coercive practice”</p> <p>means impairing or harming, or threatening to impair or harm directly or indirectly, any party or the property of the party for the purpose of influencing improperly the action or that party in connection with public procurement or in furtherance of corrupt practice or fraudulent practice;</p> <p>collusive practices” means impairing or harming, or threatening to impair or harm directly or indirectly, any part or the property of the Party for the purpose of influencing improperly the action or a part or in connection with public procurement or government contracting or in furtherance of a corrupt practice or a Fraudulent Practice</p> <p>“fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer and includes collusive practices among tenderers, prior to or after submission designed to establish tender prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition;</p> <p>“obstructive practice” means acts intended to materially impede access to required information in exercising a duty under this contract;</p>
	67.3	When either party to the Contract gives notice of a fundamental breach of Contract to the other party for a cause other than those listed under GCC 67.2 above, the Project Manager shall decide whether the said breach is fundamental or not.
	67.4	Notwithstanding the above, the Employer may terminate the Contract for convenience.
	67.5	If the Contract is terminated, the Contractor shall stop

		work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.
68. Payment upon Termination of Contract	68.1	If the Contract is terminated because of a fundamental breach by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.
	68.2	If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

69. Property	69.1	All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the contract is terminated for fundamental breach by the Contractor,
70. Suspension of Financing	70.1	<p>In the event that the source of financing is suspended to the Employer, from which part of the payments to the Contractor are being made:</p> <p>(a) The Employer shall notify the Contractor of such suspension within Seven (7) days of having received the financing agency's suspension notice.</p> <p>(b) After the Notice has been issued and within fourteen (14) days, the Parties shall mutually agree on the future events of the Contract</p>
71. Force Majeure	71.1	Neither Party shall have any liability or be deemed to be in breach of the Contract for any delay or other failure in performance of its obligations under the Contract, if such delay or failure is a result of an event of Force Majeure.
	71.2	For purpose of this clause, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood, epidemics, or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent
	71.3	If a Party (hereinafter referred to as "the Affected Party") is or will be prevented from performing its substantial obligation under the contract by Force Majeure, it shall give a Notice to the other Party giving full particulars of the event and circumstance of Force Majeure and the reasons for the event of Force Majeure preventing the Affected Party from, or delay the Affected Party from performing its obligations under

		the Contract. The Notice shall be given within fourteen days after the Affected Party becomes aware, or should have become aware, of the relevant event or circumstances constituting Force Majeure.
	71.4	The Affected Party shall use reasonable efforts to mitigate the effects of the event of Force Majeure and shall endeavour to minimise any delay in the performance of the contract as a result of Force Majeure.
	71.5	The Affected Party shall give Notice to the other Party when it ceases to be affected by the Force Majeure.
	71.6	Upon completion of the event of Force Majeure and issuance Notice pursuant to GCC 71.4, the Affected Party must, as soon as reasonably practicable recommends the performance of its obligations under the contract. Where the Affected Party is the Contractor, the Contractor must provide a revised Work Program rescheduling the Works to minimise the effect of the prevention or delay caused by the event of Force Majeure.
72. Release from Performance	72.1	In the event the Affected Party have used all reasonable efforts to mitigate the effect of the event of force Majeure and minimize any delay in the performance of the contract as result of force Majeure, but the effect of force Majeure still subsist, the Project Manager shall certify that the Contract has been frustrated.
	72.2	Upon certification by the Project Manager pursuant to GCC 72.1 the Contractor shall make the site safe and stop work as quickly as possible after receiving the certificate and shall be paid for all Works carried out.

## NEGOTIATION MINUTES

### DISCUSSION AND RESOLUTIONS

S/N	PARTICULARS	DESCRIPTION	ACTION
1	Opening of meeting.	Chairperson of the meeting called the meeting to order at 13:00hrs by welcoming remark to attendants.	Chairperson
2	Introduction and Adoption of Agenda	<ul style="list-style-type: none"> <li>• Member were self-introduced and hence the meeting was formed by the team from Client side (MOH),(MNMH)and Contractor side (M/S GOPA CONTRACTORS LTD)</li> <li>• Negotiation parameters were shared to the team and accepted for further discussion and Negotiation.</li> </ul>	All
3	Discussion on Contract Parameters	<p><b>I. Scope of Assignment</b> It was confirmed that the contractor understands clearly the scope of the project and agrees to be liable to execute the project for provision labour under Force Account.</p> <p><b>II. Project cost</b> The corrected bid price was <b>TZS 120,068,202.75/= VAT Inclusive</b> after agreeing on Discount of <b>TZS.10,068,202.75/=</b> of the corrected labour Price, the agreed contract price is <b>TZS. 105,000,000.00 VAT Inclusive</b> with the execution duration of Six (6) Months from the date of signing the contract.</p> <p><b>III. Preliminary Cost</b> All preliminaries works will be performed by the contractors at the cost of <b>Tsh 15,000,000.00/=VAT incl.</b> be paid as follows:-</p> <ol style="list-style-type: none"> <li>1. 40% paid at the first---Tsh 6,000,000/= + Advance Payment</li> <li>2. 20% 1<sup>st</sup> IPC --- Tsh 3,000,000/=</li> <li>3. 20% 3<sup>rd</sup> IPC --- Tsh 3,000,000/=</li> <li>4. 20% 5<sup>th</sup> IPC --- Tsh 3,000,000/=</li> </ol> <p><b>IV. Payment Modality</b> <b>15% of TZS. 105,000,000</b> as advance</p>	<p>info</p> <p>Gapo</p> <p>Gapo</p>

S/N	PARTICULARS	DESCRIPTION	ACTION
		<p>payment upon submission of advance payment bond in the form of Unconditional Bank Guarantee.</p> <p><b>V. Terms of payments</b>  Application of payments will follow upon completion of milestone as follow:</p> <ol style="list-style-type: none"> <li>1. 1<sup>st</sup> IPC paid after completion of all Sub structure sections</li> <li>2. 2<sup>nd</sup> IPC paid after completing of Superstructure/all walls until blocks above top of ring beam -First fix of all service</li> <li>3. Second fixing incl. Roof structure + covering, Doors Frames and grills, window frames and Grills, Door shutters, Brendaring and ceiling boards</li> <li>4. Finishing works incl. painting, Second fix works, Door shutters, Aluminum windows</li> <li>5. Testing, commissioning and demobilization</li> </ol> <p><b>VI. Resources Allocation</b>  Availability off all necessary equipment's(Plant, equipment's +working tools) as it was mentioned in Tender Documents</p> <p><b>VII. Performance Bond</b>  Agreed that contractors should submit performance bond of 2.5% of contract sum from insurance Company.</p> <p><b>III. Securities</b>  Agreed that Contractor will submit all the necessary covers for Insurance policy. CARI (contract all risk insurance, labour plus equipment's)</p> <p><b>IX. Staffing / Key Personnel</b>  Contractor Confirmed to have all the key personnel as per submitted list in a Tender</p>	<p>Gapo</p> <p>Gapo</p> <p>MNMH</p> <p>GOPA &amp; MNMH</p> <p>GOPA</p>

S/N	PARTICULARS	DESCRIPTION	ACTION
		<p>document.</p> <p><b>X. Duration of the Project</b> It was agreed that the project duration will be within 6 months from date of site possession. Contractor promised us a quality work and complete before or by the agreed completion date of the project.</p> <p><b>XI. Mobilization</b> It was agreed that mobilization period will be five days from the date of site possession upon signing the contract.</p> <p><b>XII. Work schedule</b> Agreed that contractor will submit a revised works schedule within seven days after site possession.</p> <p><b>III. Taxation</b> All materials and labour charge are VAT inclusive</p>	
5	AOB	It was agreed to enhance cooperation during implementation	ALL
7	Closing meeting of	The meeting was closed at 18:00hrs and the chairperson thanked all the members for their constructive comments that lead to meet the negotiation conclusion.	INFO







# MIREMBE NATIONAL MENTAL HEALTH HOSPITAL

Telegram: "Mirembe Hospital"  
Telegram: 0262394570  
Fax: 2390364  
Email: info@mirembe.or.tz  
Website: www.mirembe.or.tz  
Dodoma



And Isanga Institution  
P.O.Box 910  
Dodoma

In Reply Please Quote:  
Executive Director

Ref: DO/M/548/VOL I/5

21<sup>st</sup> January, 2022

Managing Director  
M/s Gopa Contractors Tanzania Limited.  
P.O Box 33259,  
Dar es Salaam.

**RE: INTENTION TO AWARD A CONTRACT FOR THE PROVISION OF LABOUR AND EQUIPMENT FOR CARRYING OUT WORKS FOR THE PROPOSED CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT (EMD) FOR MIREMBE NATIONAL MENTAL HEALTH HOSPITAL, TENDER No. ME/007/2021-2022/HQ/W/26**

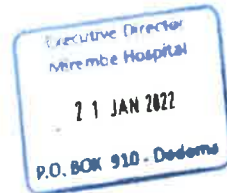
Reference is made to the above heading.

The above mentioned tender which you participated is now at the award stage. In accordance with PPA No. 7 of 2011 GN No. 446 Reg. 231(2) of the PPR 2013 we are intending to award this tender **LOT 1. (EMD Construction)** to you at the contract sum of **Tanzania Shillings One Hundred twenty Million only (Tshs 120,000,000/=) VAT Inclusive** with construction period of six (6) month from the date of signing a contract.

The reason for accepting the firm is due to the competitive price offered for provision of labour cost for construction of EMD through Force account as per our requirements.

Thank you for your cooperation.

  
Paul S. Lawala  
Executive Director





## GOPA CONTRACTORS TANZANIA LIMITED

P.O.BOX 33259, DAR ES SALAAM

Phone: +255 688 910 000 / +255 713 265 000

Website: [www.gctl.co.tz](http://www.gctl.co.tz) Email: [gopagg@gmail.com](mailto:gopagg@gmail.com), [info@gctl.co.tz](mailto:info@gctl.co.tz)

24<sup>th</sup> Jan, 2022

GCTL/MIREMBE/24/01/2022/2

EXECUTIVE DIRECTOR

MIREMBE NATIONAL MENTAL HEALTH HOSPITAL

P.O.BOX 910

DODOMA

Dear Sir

REF: PROVISION OF LABOUR , EQUIPMENTS AND PRELIMINARIES WORKS FOR CARRYING OUT PROPOSED CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT ( EMD) AND INTENSIVE UNIT CARE ( ICU) BUILDINGS FOR MIREMBE NATIONAL MENTAL HEALTH HOSPITAL LOT 1 AND LOT 2, TENDER NO ME / 007/2021-2022/HQ/W/26

**SUB: INTENTION TO AWARD A CONTRACT FOR THE PROVISION OF LABOUR AND EQUIPMENT FOR CARRYING OUT WORKS FOR THE PROPOSED CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT ( EMD ) FOR MIREMBE NATIONAL MENTAL HEALTH HOSPITAL , TENDER No. ME/007/2021-2022/HQ/W/26**

The heading above refers,

GOPA Contractors Tanzania Limited do acknowledge receipt of your letter with REF/DO/M/548/VOL1/5 and we do accept the board decision to award Lot 1.(EMD Construction) to GOPA Contractors Tanzania Limited at the contract sum of Tanzania Shillings One Hundred twenty Million only ( Tshs 120,000,000/=)

We do appreciate for trust you have showed to our company and we do commit that we will do a very professional work, at very high quality and within agreed timeframe

Thank you for your cooperation.

Yours Faithfully

**Godfrey Mogellah**  
**Managing Director & CEO**





## GOPA CONTRACTORS TANZANIA LIMITED

P.O.BOX 33259, DAR ES SALAAM

Phone: +255 688 910 000 / +255 713 265 000

Website: [www.gctl.co.tz](http://www.gctl.co.tz) Email: [gopagg@gmail.com](mailto:gopagg@gmail.com), [info@gctl.co.tz](mailto:info@gctl.co.tz)

24<sup>th</sup> Jan, 2022

GCTL/MIREMBE/24/01/2022/1,  
EXECUTIVE DIRECTOR

MIREMBE NATIONAL MENTAL HEALTH  
HOSPITAL P.O.BOX 910

DODOMA

Dear Sir

REF: PROVISION OF LABOUR, EQUIPMENTS AND PRELIMINARIES WORKS FOR CARRYING OUT PROPOSED CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT ( EMD) AND INTENSIVE UNIT CARE ( ICU) BUILDINGS FOR MIREMBE NATIONAL MENTAL HEALTH HOSPITAL LOT 1 AND LOT 2, TENDER NO ME / 007/2021-2022/HQ/W/26

**SUB: INTENTION TO AWARD A CONTRACT FOR THE PROVISION OF LABOUR AND EQUIPMENT FOR CARRYING OUT WORKS FOR THE PROPOSED CONSTRUCTION OF INTENSIVE CARE UNIT ( ICU ) FOR MIREMBE NATIONAL MENTAL HEALTH HOSPITAL, TENDER No. ME/007/2021-2022/HQ/W/26**

The heading above refers,

GOPA Contractors Tanzania Limited do acknowledge receipt of your letter with REF/DO/M/548/VOL1/4 and we do accept the board decision to award Lot 2 to Linimo Construction Limited at the agreed price

We do appreciate for taking your time to go through our documents and looking forward on doing business with you in the near future



Thank you for your cooperation.

Yours Faithfully

Godfrey Mogellah

Managing Director & CEO



## GOPA CONTRACTORS TANZANIA LIMITED

P.O. BOX 33259, DAR ES SALAAM

Phone: +255 688 910 000 / +255 713 265 000

Website: www.gctl.co.tz Email: gopagg@gmail.com, info@gctl.co.tz

### Personnel

Qualifications and experience of key personnel proposed for administration and execution of the Contract. (CVs of all key proposed key personnel shall be attached)

#### Schedule of Key Personnel

S/No.	Position <i>[PE to list required key personnel]</i>	Name	Years of Experience (General Experience) <i>[PE to list required Years of Experience]</i>	Years of experience in proposed position <i>[PE to list Years of Experience]</i>
1.	Supervising Engineer	Benjamin Kyaruzi	9	9
2.	General Site Foreman	Edmund Munisi	20	20
3.	Electrical Engineer	Alfani Rajabu Hamisi	6	6
4.	Quantity Surveyor	Winifrida Shemsika	7	5



1	PROPOSED POSITION FOR THIS PROJECT	SENIOR ENGINEER.			
2	NAME OF PERSON	Benjamin Mteganya KYARUZI.			
3	DATE OF BIRTH	15 <sup>th</sup> May 1986			
4	NATIONALITY	Tanzanian			
5	MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS	<ul style="list-style-type: none"> <li>Registered Professional Engineer, Engineers Registration Board of Tanzania (ERB), with Registration No. 4199.</li> </ul>			
6	EDUCATION:	<ul style="list-style-type: none"> <li>B.Sc. in Civil and Transportation Engineering, University of Dar es Salaam, Dar es Salaam, Tanzania (2011).</li> </ul>			
7	OTHER TRAINING				
8	LANGUAGES & DEGREE OF PROFICIENCY	<b>Language</b> Kiswahili English	<b>Speaking</b> Excellent Excellent	<b>Reading</b> Excellent Excellent	<b>Writing</b> Excellent Excellent
9	COUNTRIES OF WORK EXPERIENCE	Tanzania			
10	EMPLOYMENT RECORD				
	EMPLOYER 1: <b>GOPA Contractors Tanzania Ltd,</b> POSITION: <b>Design/Civil/Water Engineer (Employee)</b>			FROM: Feb 2020	TO: To Date

• **January 2018 to October 2018**

**Conducting of resurvey of intake, Design, preparation of tender documents at Mawa-Hanga-Msindo villages.**

Client: NAMTUMBO DISTRICT COUNCIL.

Financier: World Bank.

Position held: Water supply Engineer/Design Engineer

Activities performed: Conducting of resurvey of intake, Design, preparation of tender documents at Mawa-Hanga-Msindo villages

• **April 2017 to December 2018**

**Construction of Piped Water Supply Project for Mkongo Gulioni-Nahimba villages and Litola – Kumbara villages in Namtumbo District Council Contracts.**

Client: NAMTUMBO DISTRICT COUNCIL.

Financier: World Bank.

Position held: Water supply Engineer/Design Engineer

Activities performed: Supervision of Construction of water projects of works contract/review of design of both contracts.

• **January 2017 to April 2017**

**Construction of Piped Water Supply Project for Migoli and Mtera Villages in Iringa District Council Contract.**

Client: IRINGA DISTRICT COUNCIL.

Financier: World Bank.

Position held: Road/Water supply Engineer,

Activities performed: Supervision of Construction of water projects of works contract.

• **January 2015 to December 2016**

**Detailed Design Review and Supervision of Isupilo, Itengulinyi, Lumuli and Magunga village water Supply and sanitation project in IRINGA District Council.**

Client: IRINGA DISTRICT COUNCIL.

Financier: World Bank.

Position held: Design/Water supply Engineer,

Activities performed: Detailed Design Review for water supply network and Supervision of Construction of works contract.

• **November 2015 to June 2016.**

**Design review and Supervision of Construction of Ulonge water supply and Sanitation project in IRINGA Municipal.**

Location: Tanzania

Client: Iringa Municipal Council.

Financier: World Bank.



<p>Main project features: Supervision Construction Position held: Water Supply Engineer.</p> <p>Activities performed: Design review and Supervision of Ulonge water supply and sanitation project in IRINGA Municipal.</p> <p>• <b>October 2013 to January 2015</b></p> <p><b>Design review and supervision of Nduli, Mgongo and Kigonzile water Supply and sanitation project in IRINGA Municipal Council.</b></p> <p>Location: Tanzania Client: Iringa Municipal Council. Financier: World Bank. Main project features: Supervision Construction Position held: Water Supply Engineer. Activities performed:</p> <p>Design review and supervision of Nduli, Mgongo and Kigonzile water Supply and sanitation project in IRINGA Municipal Council.</p> <p>• <b>January 2013 to October 2013.</b></p> <p><b>Consultancy services for technical and facilitation services for rural water Supply and sanitation project in Songea Municipal Council together with Songea District Council.</b> Location: Tanzania Client: Songea District council and Songea Municipal Council. Financier: World Bank. Main project features: Hydraulic Design, preparation of Tender Document and Supervision of works Contract. Position held: Water Supply Engineer.</p> <p>Activities performed: Review water demand design data, Hydraulic Design for gravity scheme (Distribution main) using EPANET software, Preparation of Bills of Quantities, Specification and Construction Drawings and Supervision for technical and facilitation services for rural water Supply and sanitation project in Songea Municipal council together with Songea District Council.</p>		
<p>EMPLOYER 2: <b>DEL MONTE (T) LTD</b></p> <p>POSITION: Highway Engineer (Employee)</p>	<p>FROM:</p> <p>May 2012</p>	<p>TO:</p> <p>February 2013</p>
<p><b>Name of Assignment: Construction of phase one (Maintenances of Mabatini-1.2km, Police Mabatini-0.135km and Estate road-0.6km) to Asphalt concrete Layer.</b></p> <p>Location: Tanzania Client: Kinondoni Municipal Council. Financier: Government of Tanzania. Main project features: Construction gravel road to asphalt concrete layer. Position held: Highway Engineer.</p>		



	<p><b>Activities performed: construction of phase one (Maintenances of Mabatini-1.2km, Police Mabatini-0.135km and Estate road-0.6km) to Asphalt concrete Layer.</b></p> <p><b>Duties:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Supervision role in construction activities by measuring of quantities for the executed works.</li> <li><input type="checkbox"/> Preparation and conducting of regular site meetings and other third part meetings on behalf of the contractor.</li> <li><input type="checkbox"/> Training students from various Universities, step by steps. i.e. from preparation of sub grade layer to asphalt concrete.</li> <li><input type="checkbox"/> Processing supply, scheduling utilization and recording of materials, Labour and plant.</li> <li><input type="checkbox"/> Preparation and implementation of work schedules (programs).</li> <li><input type="checkbox"/> Production of civil works components.</li> <li><input type="checkbox"/> Quality control by field/Laboratory testing of materials and building/civil works components.</li> <li><input type="checkbox"/> Measuring up works, costing and preparation of accounts.</li> <li><input type="checkbox"/> Staff and Labour relations.</li> </ul>		
	<p><b>EMPLOYER 3: HARI SINGH AND SONS LTD.</b></p> <p>POSITION: Site Engineer (Employee)</p>	<p>FROM: August 2011</p>	<p>TO: May 2012.</p>
	<p><b>Upgrading of Kipawa Power Substation Dar es Salaam, Upgrading of Kigogo to Msimbazi road to tarmac level and upgrading of Tabata Kinyerezi to Mbuyuni road to tarmac level.</b></p> <p>Location: Tanzania  Client: TANESCO/TANROAD.  Financier: World Bank/Government of Tanzania.  Main project features: Detail Engineering Design  Review. Position held: Site Engineer.</p> <p>Activities performed: Upgrading of Kipawa Power Substation Dar es Salaam, Upgrading of Kigogo to Msimbazi road to tarmac level and upgrading of Tabata Kinyerezi to Mbuyuni road to tarmac level.</p>		
	<p><b>Duties:</b></p> <ul style="list-style-type: none"> <li>• Supervising in construction of all civil works i.e. Foundation and basement of all machines and transformer.</li> <li>• Upgrading of roads to tarmac level, Conduct site meetings, issue correspondences and preparation of Interim Payment Certificate.</li> </ul>		

11.WORK UNDERTAKEN THAT BEST ILLUSTRATES MY CAPABILITY TO HANDLE THIS ASSIGNMENT

- **January 2018 to June 2018;** Design/Water Engineer, Detailed design review Likuyuseka-Maganga and Luhimbalilo-Naikesi projects. Preparation of EOI, RFP and tender documents of the same water Projects.
- **April 2017 to December 2018;** Supervision of Construction of **Mkongo Gulioni-Nahimba villages and Litola –Kumbara villages in Namtumbo District Council Contracts.** Review of the design to suit the available environment at the site
- **January 2016 To December 2017;** Design/Water Engineer, Detailed design review of Kahama Water projects. Preparation of EOI, RFP and tender documents of various water Projects.
- **January 2015 to Date, Water supply Engineer,** Detailed Design Review and Supervision of Isupilo, Itengulinyi, Lumuli and Magunga village water Supply and sanitation project in IRINGA District Council.
- **November 2015 to June 2016, Water Supply Engineer,** Design review and Supervision of Construction of Ulonge water supply and Sanitation project in IRINGA Municipal.

- October 2013 to January 2015, Water Supply Engineer;** Design review and supervision of Nduli, Mgongo and Kigonzi water Supply and sanitation project in IRINGA Municipal Council.
- January 2013 to October 2013, Water Supply Engineer;** Consultancy services for technical and facilitation services for rural water Supply and sanitation project in Songea Municipal Council together with Songea District Council.
- May 2012 to February 2013, Highway Engineer;** Construction of phase one (Maintenances of Mabatini-1.2km, Police Mabatini-0.135km and Estate road-0.6km) to Asphalt concrete Layer.
- August 2011 to May 2012, Site Engineer;** Upgrading of Kipawa Power Substation Dar es Salaam, Upgrading of Kigogo to Msimbazi road to tarmac level and upgrading of Tabata Kinyerezi to Mbuyuni road to tarmac level.

12. REFEREES

**(A) Eng. Rabi Paul (Registered Consulting Engineer).**

**From NORPLAN TANZANIA LTD. (My SUPERVISOR).**

**P.O. BOX 2820 DAR ES SALAAM.**

**Mobile No: +255 655 889 975.**

**Email Address: [rabipaul@norplantz.org](mailto:rabipaul@norplantz.org) or [j2000rabai@yahoo.com](mailto:j2000rabai@yahoo.com).**

**(B) Eng. Lucas N. Madaha**

**Iringa District Water Engineer**

**P.O. BOX 108 IRINGA TANZANIA.**

**Mobile No: +255 767 741 480 or +255 784 471 480**

**Email address: [madaha.lucas@gmail.com](mailto:madaha.lucas@gmail.com) or [Imadaha@yahoo.co.uk](mailto:Imadaha@yahoo.co.uk)**

**Certification:**

I, the undersigned, certify that (i) I was not a former employee of the Client immediately before the submission of this proposal, and (ii) to the best of my knowledge and belief, this biodata correctly describes myself, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Signature -

Date of Signing: 14/December/2018

UNIVERSITY OF DAR ES SALAAM



*This is to certify*

that

*Benjamin Kyaruzi*

having satisfied the requirements for the award of the

DEGREE OF  
BACHELOR OF SCIENCE IN CIVIL  
AND TRANSPORTATION ENGINEERING  
WITH HONOURS,

*Second Class, Lower Division*

was admitted to the degree at a congregation  
held in DAR ES SALAAM, on the

*Twenty Fifth day of October,*

*in the year Two thousand and eleven*

*K. M. M. M. M. M.*

Vice Chancellor



*[Signature]*

Deputy Vice Chancellor  
(Academic, Research and Consultancy)

BSC(CTE)000485





RG/C05

UNITED REPUBLIC OF TANZANIA  
ENGINEERS REGISTRATION  
BOARD



Certificate  
of Registration

(Under the Engineers Registration Act, 1997)

It is hereby certified that

**Benjamin M. Hyaruzi**

having satisfied the requirements for registration as a

**PROFESSIONAL ENGINEER**

under the provisions of the Engineers Registration Act, 1997, was

registered as such on the **09<sup>th</sup>** day of **October, 2015**

in the discipline of **Civil** engineering

and was given registration number **4199**.

Sealed and given under our hands at Dar es Salaam

this **29<sup>th</sup>** day of **December, 2015**.

*[Signature]*

Eng. S. D. M. Mlote  
Registrar

*[Signature]*

Eng. Prof. N. M. Leina  
Chairman

*[Signature]*

Eng. Nuberis P. J. Nyange  
Board Member

**"Not valid without photograph of the bearer and practising Licence"**

**CURRICULUM VITAE**

**EDMUND J.MUNISI**

Tel : 0787 - 204630 / 0756-224781 - [edmundjames48@yahoo.com](mailto:edmundjames48@yahoo.com)

Date of birth	1 <sup>st</sup> January, 1975
Nationality	Tanzanian
Professional	E.T.C. in Civil Engineering

**WORKING EXPERIENCE (20 YEARS WORKING EXPERIENCE)**

**NOTE:** I have been in a construction of building and roads construction for 10 years and in construction of tower for 10 years

Currently	Working with GOPA Contractors as a site Foremen ERPP Project up to now
2016 - 2019	<p>I start working with Maktech as a supervisor for 1 year then promoted as project manager in civil department/hit cole projects , Vodacom TOWER CONSTRUCTION ,HTT CONSOLIDATION PROJECTS.</p> <ol style="list-style-type: none"> <li>i. I build viettel 18 sites at Dar salaam zone, also follow up..PAC and FAC</li> <li>ii. I build Vodacom ucal project 11 sites -On this project I did the bellow activities             <ul style="list-style-type: none"> <li>-I prepared working program, tower construction as site supervisor, Solar Installation, then follow up PAC and FAC from VODACOM HEAD OFFICE</li> </ul> </li> <li>iii. HTT Tigo Collocation project AS Project manager..site surveying, site implementation. PAC and FAC Follow up</li> <li>iv. HTT Consolidation project, Tower replacement, Tower replacement project as project manager, Tower strengthening,general site maintenance knolge..             <ul style="list-style-type: none"> <li>-Site surveying, site implementation. PAC and FAC follow up at Helios Tower</li> </ul> </li> </ol> <p>Right NOW I have knowledge of DT -Drive test, TI Projects, ..The only I need DT and TI is to go site and practice for a few days and become a time leader.. ALSO I HAVE ALL NOKIA HSE CERTIFICATE...SEE THE CERTIFICATE BELOW</p>
2015-2008	Working with Fabec as site supervisor in Roads Construction-Tanroads works at Rukwa/mining construction At GGM Gelta/Tower construction as a sub-contractor.



2007-2005	WORKING WITH PLESSEY (PTY) PROJECT CONTINUATION OF TOWERS - inspection of sub-contractors plus work quality control
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**WORKING PROCEDURE WITH PLESSEY**

No	Activity	Tasks	Out put	Target date
1	Site Surveys	i. Soil test ii. Take site coordinate iii. Site Assessment, meaning road access, power roots, determining lever for retaining walls iv. Site drawing	Complete site survey report	As per customer request within 7 days survey done depending numbers of site
2	Planning	i. Identify suitable sub-contractors ii. Allocate work to sub-contractors iii. Schedule materials deliveries obtained site files.	accept site file	within 1 day after receipt of client head office
3	Monitoring of site build	i. Safety equipment inspection ii. Contractor site build equipment inspection iii. Verify site drawings are on site iv. Site build material inspection v. Plessey equipment acceptances by contractor. vi. Ensure that site is build in accordance with specification ii. Control variations ii. Conduct e3 site visit per week Cleanliness on site	Site diary Site instructions	Site to build in 30 days
4	Inspection	i. Site marking ii. Foundation Hold Point Inspection iii. Slab inspection	i. foundation Hold Point inspection tick sheets	ii. tower erection start according to the date arranged





		<ul style="list-style-type: none"> <li>iv. Tower erection start inspection</li> <li>v. Final tower inspection</li> <li>vi. Shelter / Electrical inspection</li> <li>vii. Final civil inspection</li> <li>viii. Provisional Acceptance Test (PAC) final acceptance Test (FAC)</li> </ul>	<ul style="list-style-type: none"> <li>iii. final tower inspection tick sheet</li> <li>iv. shelter inspection tick sheet</li> <li>v. electrical inspection tick sheet</li> <li>vi. final civil inspection tick sheet</li> <li>vii. completed PAC form</li> <li>viii. completed FAC form rev client PAT document</li> <li>i. expense claim</li> </ul>	<ul style="list-style-type: none"> <li>i. Monthly or on return to country head office</li> </ul>
5	Finance	<p>Manage Field Cash Advance</p> <p>Ensure Good Company Governance Prevail</p> <p>(No bribes, irregularities etc)</p> <ul style="list-style-type: none"> <li>i. ensure that you are in possession of safety equipment</li> <li>ii. ensure that your in possession of all required tools and test equipment</li> <li>iii. ensure good governance of company assets</li> </ul>	<ul style="list-style-type: none"> <li>i. asset list</li> <li>ii. report misure and/or lost assets</li> <li>iii.</li> </ul>	<ul style="list-style-type: none"> <li>i. Before brake or 2 m</li> </ul>
6	Assets			
7	General conduct	<ul style="list-style-type: none"> <li>i. Adherence to all health and safety</li> <li>ii. Adherence to the countries laws</li> <li>iii. Ensure good company governance prevail (No Bribes, irregularities etc)</li> </ul>	<ul style="list-style-type: none"> <li>i. Competency certificate</li> <li>ii. Lawful conduct</li> <li>iii. Professional and ethical conduct</li> </ul>	<ul style="list-style-type: none"> <li>i. Continuous</li> <li>ii. Continuous</li> <li>iii. Continuous</li> </ul>



- Tar - Epoxy coating - prepare surface by sand blasting
- Apply Epoxy coating master seal Sp120
- Shutting
- Concrete casting using Degussa ( Master flow 928T)



<b>2002 - 2005</b> (4 YEARS)	<b>SITE SUPERVISOR</b> PROJECT (T.H.A - Housing Rehabilitation)
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• **JOB SUMMARY**

- Site survey and Compilation of bill of quantities for all maintenance items required.
- Producing of Architectural drawing of the same building to show details of floor plan, elevations, Cross - sections, roof plan, roof truss etc.
- Renovation of different houses - General repair - door's, window's Frames, Plumbing, External and Internal painting, roofing complete by providing timber truss and fixing roofing sheets.
- Demolishing partitioning walls and Erecting block walls as necessary.
- Provision of grills frames, fittings louvers glasses

1999 - 2001	SITE SUPERVISOR
(2 YEARS)	Project (Mafuta house project) Benjamin Tower with Mavji Construction Company Ltd)

• **JOB SUMMARY**

- Surveying different levels & Transferring of different point to the next floor.
- Steel fixing (column) Beams, Slabs, Stairs)

- ✓ Shuttering inspection. (Columns, Slabs, Beams etc)
- ✓ Setting-out of building. (setting-out of columns, walls, etc
- ✓ Concrete casting and taking cube for testing. (Making sure all ratio mixed according to requirement of the grade.)

**NOTE**

I have been in a course at VENTURI: RISK MANAGEMENT and successfully attended and passed the level (I) on road defensive driving.

Also I have a certificate of first aid course conducted by TANZANIA ROAD CROSS SOCIETY.

Also I have been DAR ES SALAAM CITY COUNCIL (fire and rescue services- training Unit) and successfully completed a BASIC FIRE FIGHTING COURSE

**REFEREES**

1. INOCENT MUSHI  
PROJECT MANAGER PLESSEY / Right now is PM Best one Company  
MOBILE:0757324367
2. MAKTECH - HR  
ACQZ MAKUNGANYA  
MOHIL.F:0767 - 232 294
3. HTT PROJECT QUALITY CONTROL,  
ISRAEL  
0658 - 880 151
4. MANASE TWEVE  
PROPERTIES MANAGER  
VODACOM HEAD QUARTER  
MOBILE: 0754 - 710 428

Yours: ... 



MBEYA TECHNICAL COLLEGE



MBEYA

COLLEGE LEAVING CERTIFICATE

This is to certify that

EDMOND MUMBI

has followed a *Full Technician Certificate*  
course at Mbeya Technical College  
for a period of THREE years

in CIVIL ENGINEERING

from JANUARY 1996 to NOVEMBER 1998

REGISTRAR

PRINCIPAL  
MBEYA TECHNICAL COLLEGE

The course included instructions in the following subjects:  
(See overleaf)

FTC No. MTC. 01012

## CURRICULUM VITAE

### A: PERSONAL INFORMATION

<b>Surname</b>	HAMISI	<b>Sex</b>	MALE
<b>First Name</b>	ALFANI	<b>Marital Status</b>	SINGLE
<b>Date of Birth</b>	12/05/1989	<b>Nationality</b>	TANZANIAN

### B: CONTACT INFORMATION

<b>Street :</b>	LEGO
<b>Postal address</b>	P.O.BOX 55095
<b>District</b>	UBUNGO
<b>Region</b>	DAR ES SALAAM
<b>Cell Phone No:</b>	0787891188
<b>Email :</b>	thenduli@gmail.com

### C: EDUCATION INFORMATION

Item No.	Date in years	Qualification awarded	Name and type of Organization providing education training
1	2011 -2015	Bachelor Degree in Electrical and Electronics Engineering	St. Joseph University in Tanzania
2	2009 - 2011	Advanced Certificate of Secondary Education Examination (ACSEE)	Same Secondary School
3	2005 - 2008	Certificate for Secondary Education Examination (CSEE)	Same Secondary School
4	1998 - 2004	Primary School Certificate	Machiga Primary School

### D: WORKING EXPERIENCE

1. Chemi and Cotex Industry ltd from November 2012 to 2014 as a field trainee
2. TANESCO in 2014 as a field trainee Engineer
3. Apollo international company from October 2015 to August 2016.
4. Central Electrical International ltd from August 2016 up September 2018 to date as site Engineer.
5. GOPA Contractors Tanzania Limited from September 2018 to date

**E: RELATED TRAINING RECORDS AND WORK EXPERIENCE**

s/n	company	Period (From To)	Position Held	Task Involved and work experience:
1	Chemi&Corex Industry ltd	November 2012 to July 2014	Trainee Electrical Engineer	1.Troubleshooting electrical problem in machine using PLC 2.Designing electrical control circuit 3.Installation procedure
2	Tanzania Electric Supply Company (TANESCO)	July 2014 to September 2014	Trainee Electrical Engineer	1.Assist in design and construction of 11Kv distribution line. 2.Installation of new service line to new customers. 3 Maintenance of HT transmission lines
3	Gopa contractor ltd	October 2015 to August 2016	Site supervisor	1. Installation of alarm system in telecommunication tower 2. Generator and rectifier installation 3. power up grad in telecommunication tower
3	Central electrical International ltd	August 2016 up September 2018	electrical engineer	1.Designing of light, cable size, distribution board and sub board 2. Buz bar, Cable ladder and cable tray designing and installation 3. Installation of fire detection and alarm system components like heat detectors and smoke detectors. 4. Generator and transformer installation
4	Apollo international ltd	September 2018 to date	Site Supervisor	1. building of HT and LT line 2. building of substations

**F: LANGUAGE PROFICIENCY**

	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
<b>English</b>	Good	Excellent	Excellent
<b>Kiswahili</b>	Excellent	Excellent	Excellent

**G: COMPUTER LITERACY**



ERB-B- 0116004527



UNITED REPUBLIC OF TANZANIA  
ENGINEERS REGISTRATION  
BOARD



**Certificate  
of Registration**  
(Under the Engineers Registration Act, 1997)

It is hereby certified that

**ALBANI R. Hamisi**

having satisfied the requirements for registration as a

**PROFESSIONAL ENGINEER**

under the provisions of the Engineers Registration Act, 1997, was

registered as such on the 23<sup>rd</sup> day of August, 2019

in the discipline of **Electrical and Electronics** engineering

and was given registration number **5930**.

Sealed and given under our hands at Dar es Salaam

this 11<sup>th</sup> day of October, 2019.

Eng. P. Barozi  
Registrar

Eng. Prof. N. M. Lema  
Chairman

Eng. Othman S. Khatjo  
Board Member

"Not valid without Hologram Sticker, photograph of the bearer and practicing Licence"





Serial No. W131602855



*The Council of St. Joseph University in Tanzania  
hereby makes known that ALFANI R HAMISI  
Registration No. H17153003 has been admitted in the  
Bachelor Degree in Electrical and Electronics Engineering  
he / she having been certified by  
duly appointed Examiners to be qualified to receive the same  
and placed in **UPPER SECOND CLASS**  
at the examination held in September 2015.*

Given under the seal of the University

Place : Dar es Salaam, Tanzania.

Issued on : 12<sup>th</sup> May, 2016.



  
President - University Council

  
Chancellor

Ugali Mchizi Mwanu St. C. House,  
Kariakoo and Mwanu St. House

## DETAILED CURRICULUM VITAE

Contacts: +225753445073

E-mail: [fridahshem@gmail.com](mailto:fridahshem@gmail.com)

### PERSONAL PARTICULARS

<b>Surname:</b> Shemsika	<b>First Name:</b> Winifrida	<b>Date of Birth:</b> 06 <sup>th</sup> March, 1990
<b>Nationality :</b> Tanzanian	<b>Gender/Status :</b> Female/Married	
<b>Place of Birth :</b> Dodoma, Tanzania		
<b>Religion :</b> Christian		

	Language capacity		
	Speaking	Writing	Reading
English	Very good	Very good	Very good
Kiswahili	excellent	excellent	excellent

### PROFESSIONAL WORK EXPERIENCE

<b>July 2014 –To date</b>	<p><b>Title:</b> GOPA Contractors Tanzania Limited</p> <p><b>Activities performed:</b></p> <p><b>A. Pre - contract duties</b></p> <ul style="list-style-type: none"> <li>• Preparation of preliminary costs estimates</li> <li>• Scrutinize, review of tender drawings, documents for any discrepancies and seek clarification there to (technical auditing of structural &amp; architectural drawings)</li> <li>• Take off for all elements for preparation of Bills of Quantities (BOQ)</li> <li>• Preparation of tender documents/bid documents</li> <li>• Preparation of contract documents</li> <li>• Evaluation of Tenders</li> </ul> <p><b>B. Post contract duties</b></p> <ul style="list-style-type: none"> <li>• Preparing and agreeing payments applications/valuations so that payments is received in accordance with terms and conditions of contract</li> <li>• Preparation and compilation of variation claim documents</li> <li>• Attend progress meetings and provide updates to client, site visit and when required monitor progress</li> <li>• Prepare payment application/progress payment claim against value of work done for measured work, variations and any re-measurements.</li> <li>• Prepare financial appraisal</li> </ul>
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ARCHITECTS AND QUANTITY SURVEYORS REGISTRATION BOARD  
CERTIFICATE OF REGISTRATION



This is to certify that  
**Shemsika Winifrida**

Is registered as a **Quantity Surveyor**

With registration number **QL 371.445.02/17**

In accordance with the provisions of the Architects and Quantity Surveyors  
(Registration) Act No 4 of 2010.

In witness whereof the common seal has been affixed hereto on this day of  
**2<sup>nd</sup> February, 2017**

  
Registrar

  
Chairperson

  
Member

This certificate is held subject to the provisions of the By-laws made  
under the Act.

No: **CD. 1369**



# ARDHI UNIVERSITY



*This is to certify*

that

*Winifrida Shemsika*

having satisfied the requirements for the award of the

**BACHELOR OF SCIENCE  
IN BUILDING ECONOMICS**

**Upper Second**

was admitted to the degree at a congregation  
held in DAR ES SALAAM, on the

*Sixth day of December,*

*in the year Five Thousand and Fourteen*

*John M. Mwakilima*  
Vice-Chancellor



*George*  
Deputy Vice-Chancellor  
Learning Office

BSBE 000531

004-2288-0000





## GOPA CONTRACTORS TANZANIA LIMITED

P.O. BOX 33259, DAR ES SALAAM

Phone: +255 688 910 000 / +255 713 265 000

Website: [www.gctl.co.tz](http://www.gctl.co.tz) Email: [gopagg@gmail.com](mailto:gopagg@gmail.com), [info@gctl.co.tz](mailto:info@gctl.co.tz)

### EQUIPMENT AND PLANTS

S/No.	Item of equipment	Description, make, and age (years)	Condition (new, good, Poor) and number available	Owned, leased (from whom?) or to be purchased (from whom?)
1	Concrete Mixer	2009 & 2011	Good	Owned
2	Plate Compactor	2007	Good	Leased
3	Ingle Grader	2018	Good	Owned
4	Pick Up	2010	Good	Owned
5	Truck	1999	Good	Owned & leased
6	7 Tons Lorry	2011	Good	Owned & leased
7	Poker Vibrator	2012	Good	Leased





## Hematec Investment Limited

Plot 608, Block C, No. 275 Sinze C

P. O. Box 34078 Dar es Salaam

Office #: +255 222 46 18 95

MOBILE: 0759487205 / 0753982824

E-Mail, Email: info@hematec.co.tz

Website: www.hematec.com

04<sup>th</sup> January, 2022.

To: Project Manager,  
Mirembe National Hospital and Mental Health  
P.O. Box 910  
Dodoma

Dear Sir/Madam,

**RE: PROVISION OF LABOUR, EQUIPMENTS AND PRELIMINARIES WORKS FOR CARRYING OUT PROPOSED CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT (EMD) AND INTENSIVE UNIT CARE (ICU) BUILDINGS FOR MIREMBE NATIONAL HOSPITAL AND MENTAL HEALTH LOT 1 AND LOT 2, TENDER NO. ME/007/2021-2022HO/W/26**

Sub: **Lease of Equipment's**

Refer to headings above.

We HELMATEC INVESTMENT LIMITED of P.O.Box 34078, Dar Es Salaam have reached an agreement with GOPA CONTRACTORS TANZANIA LIMITED of P.O.Box 33259, Dar Es Salaam to lease our equipment's listed below for the purpose of executing the above mentioned projects until completion of the project works:

No.	Equipment Type and Characteristics	Minimum Number required
1	Concrete Mixer	1
2	Plate Compactor	1
3	Ingle Grader	1
4	Pick Up	1
5	Truck	1
6	7 Tons Lorry	1
7	Poker Vibrator	2

Thank you for your cooperation.

Yours Sincerely,

  
HERIEL MUHULO

MANAGING DIRECTOR



Aim at excellence speed and quality

PROPOSED CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT (EMD) FOR REGIONAL REFERRAL HOSPITALS FOR MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

TYPICAL NOTES

<p>1. The drawing should be read in conjunction with respective architectural drawing.</p> <p>2. For discrepancy refer to Structural Engineer for reconciliation.</p> <p>3. Concrete for R.C. work shall be Grade 25 in Footings and columns; 20 N/mm<sup>2</sup> for beams and slabs – Nominal volumetric proportion shall be 1:1.5:3 and 1:2: 4; respectively, cube strength not less than 25 N/mm<sup>2</sup> and 20 N/mm<sup>2</sup> within 28 days.</p> <p>4. Reinforcement of plain round hot rolled mild steel with a minimum yield stress of 250 N/mm<sup>2</sup> shall be used for all links.</p> <p>5. Reinforcement of hot rolled high tensile deformed steel bars with a minimum yield stress of 460 N/mm<sup>2</sup> shall be used for all main bar reinforcement.</p> <p>6. Concrete for strip wall foundations to be grade 20 Nominal volumetric proportion 1:2:4 cube strength of not less than 20 N/mm<sup>2</sup> within 28 days.</p> <p>7. A leveling course of 30mm thick with a concrete grade 10 of 1:4: 8 nominal volumetric proportion, shall be given under all column bases and strip footings.</p> <p>8. Clear cover for concrete shall be as follows: -</p> <p style="margin-left: 40px;">Slabs and walls .....20 mm. Beams ..... 25 mm for main reinforcement. Columns ..... 30 mm for links. Foundations ..... 50 mm.</p> <p>9. Concrete blocks used for load bearing walls shall be of concrete grade 10 with cube strength not less than 10 N/mm<sup>2</sup> on cement –sand mortar. All blocks used for load bearing walls must be cured for 28 days.</p> <p>10. Concrete blocks used for other than load bearing walls can be of concrete grade 7. Nominal volumetric proportion of 1:4:8 with cube strength of not less than 28 days, on cement – lime , sand mortar of 1:3:6 by volume. All blocks used for block work must be at least 28 days.</p> <p>11. Timber used for structures to be podo or mirambaca or cypress or cedar-seasoned with moisture below 18%, in case of use of other kinds of timber than the Structural Engineer's approval is required.</p> <p>12. Timber used for structures to be treated with pressure impregnation.</p>	<p>13. The depth of setting foundations depends on the site conditions and may be adjusted according to Structural Engineer's instructions.</p> <p>14. Material for hardcore should either be Hard stone or coral stone sizes varying from 100 mm to 40mm.</p> <p>15. Material for aggregate shall be granite supplied from any other source as approved by Engineer Sizes to be 12.5 mm for columns, slabs, beams and staircase. 19.0mm for Foundations.</p>
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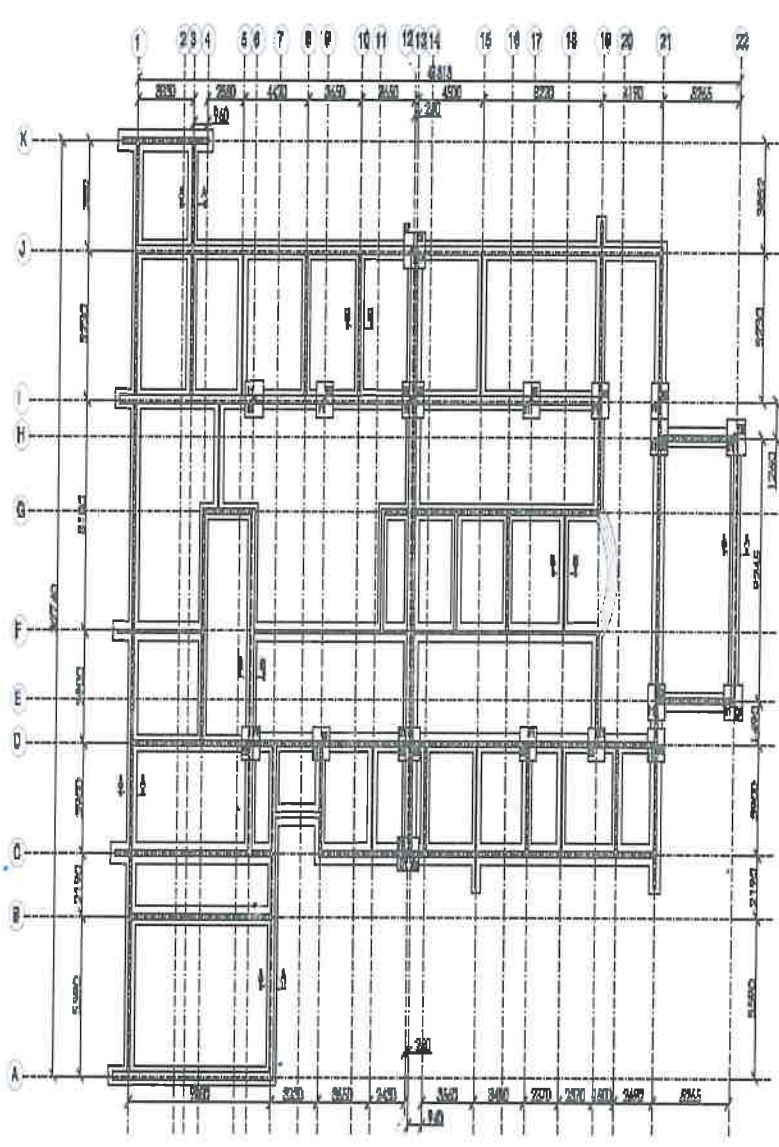
30012



PROPOSED CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT (EMD) FOR REGIONAL REFERRAL HOSPITALS FOR MINISTRY  
OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

LIST OF STRUCTURAL DRAWINGS:

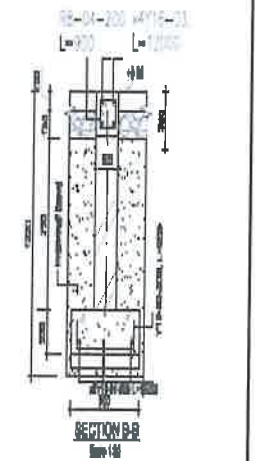
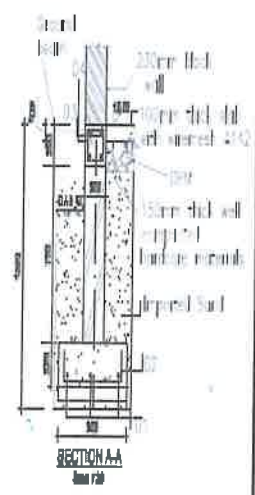
01. FOUNDATION LAYOUT PLAN .....	S01/12
02. GROUND FLOOR PLAN .....	S02/12
03. LOWER ROOF PLAN .....	S03/12
04. UPPER ROOF PLAN .....	S04/12
05. COLUMN FOOTINGS AND COLUMNS RC DETAILS.....	S05/12
06. ROOF SLAB R.C DETAILS BOTTOM AND TOP BARS.....	S06/12
07. LOWER TRUSS ELEVATIONS .....	S07/12
08. TRUSS ELEVATIONS .....	S08/12
09. UPPER ROOF TRUSS AND CONNECTION DETAILS.....	S09/12



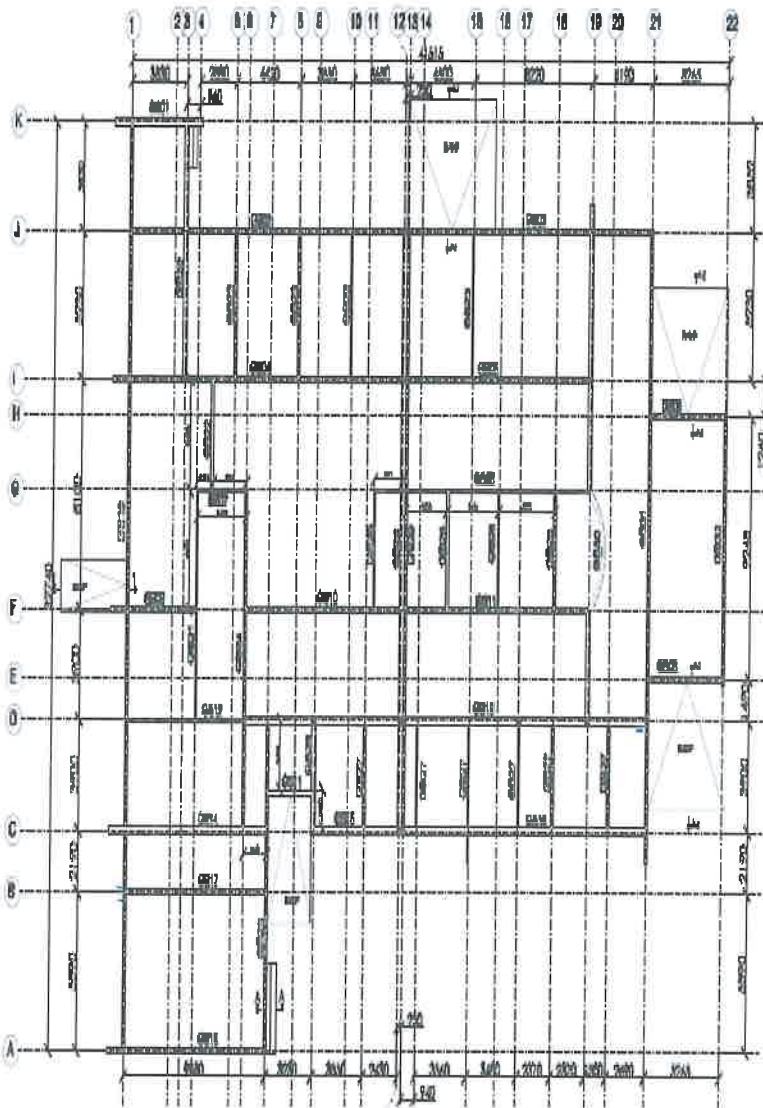
FOUNDATION LAYOUT PLAN  
SCALE: 1:50

FOUNTING SCHEDULE:		
TYPE	FOUNTING SIZE	NO
F1	1200x1200x350	14
F2	1200x1450x350	4

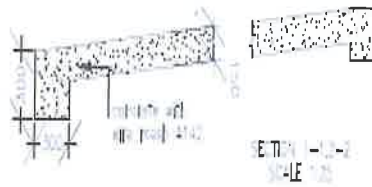
COLUMN SCHEDULE:		
TYPE	COLUMN SIZE	NO
C1	230x230mm	4
C2	230x320mm	4
C3	230x250mm	10



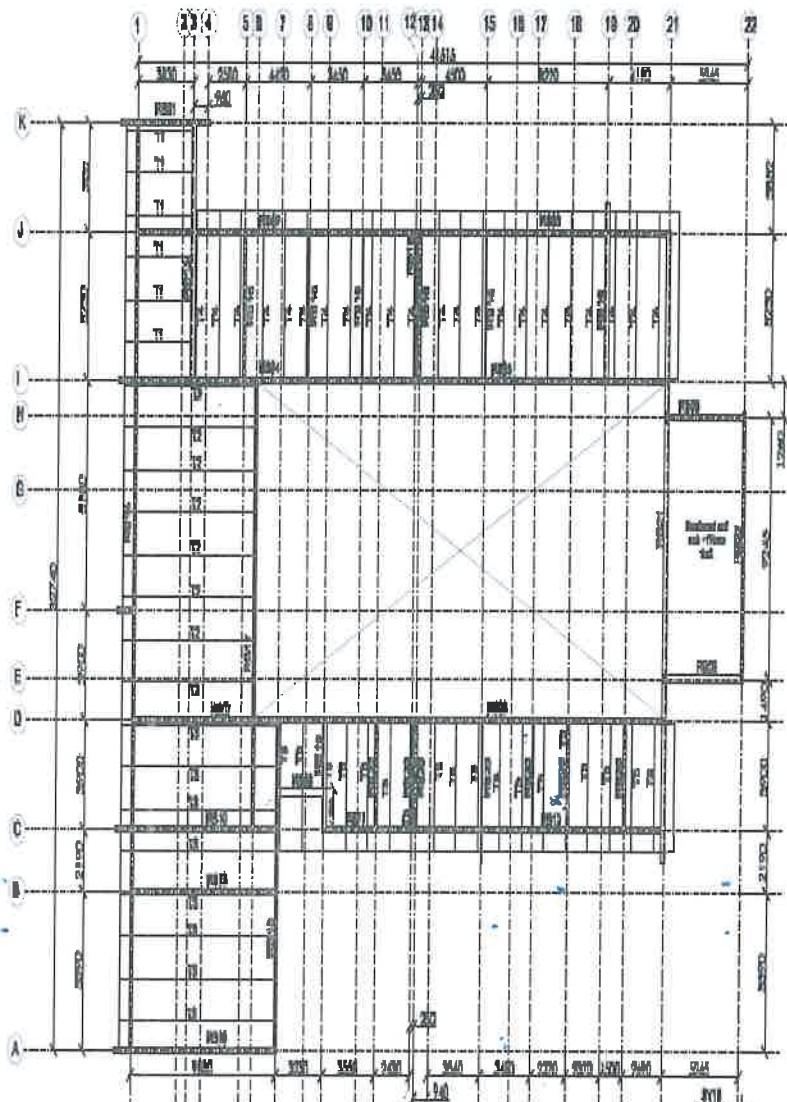
Notes: 1. THE FOUNDATION IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SANS 10400 PART 1 AND 2.	No. of Columns: _____ No. of Beams: _____ No. of Foundations: _____ No. of Piles: _____	Drawn by: G. G. G. G. Checked by: K. M. M. M. Date: 15/11/2011	Design by: G. G. G. G. Checked by: K. M. M. M. Date: 15/11/2011	Approved by: A. P. P. P. Date: 15/11/2011
	Title: FOUNDATION LAYOUT PLAN AND SECTION Scale: 1:50 Date: 15/11/2011	Project: _____ Client: _____ Location: _____	Drawing No: _____ Revision: _____	Project: _____ Client: _____ Location: _____



**GROUND FLOOR LAYOUT PLAN**  
SCALE 1:200



Design No: 1000000000 Date: 10/10/2010 Drawn by: A. PRASAD Checked by: A. PRASAD Scale: 1:200 Date: 10/10/2010	No. of Columns: 22	No. of Beams: 11	No. of Corners: 22	Date: 10/10/2010 Design: 1000000000 Project: 1000000000	Drawing No: 1000000000 Ground Floor Plan and Section	Designed by: 1000000000 Checked by: A. PRASAD Scale: 1:200 Date: 10/10/2010	Approved: A. PRASAD Date: 10/10/2010
	No. of Columns: 22	No. of Beams: 11	No. of Corners: 22	Date: 10/10/2010 Design: 1000000000 Project: 1000000000	Drawing No: 1000000000 Ground Floor Plan and Section	Designed by: 1000000000 Checked by: A. PRASAD Scale: 1:200 Date: 10/10/2010	Approved: A. PRASAD Date: 10/10/2010



LOWER ROOF LAYOUT PLAN  
SCALE: 1:25

ROOF BEAMS SCHEDULE LOWER LEVEL

TYPE	BEAM SIZE	NO
RB01	230X300	1
RB02	230X300	1
RB03	230X300	1
RB04	230X300	1
RB05	230X300	1
RB06	230X300	1
RB07	230X300	1
RB08	230X300	1
RB09	230X300	1
RB10	230X300	1
RB11	230X300	1
RB12	230X300	1
RB13	230X300	1
RB14	230X300	1
RB15	230X300	1
RB16	230X300	1
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RB19	230X300	1
RB20	230X300	1
RB21	230X350	1
RB22	230X350	1

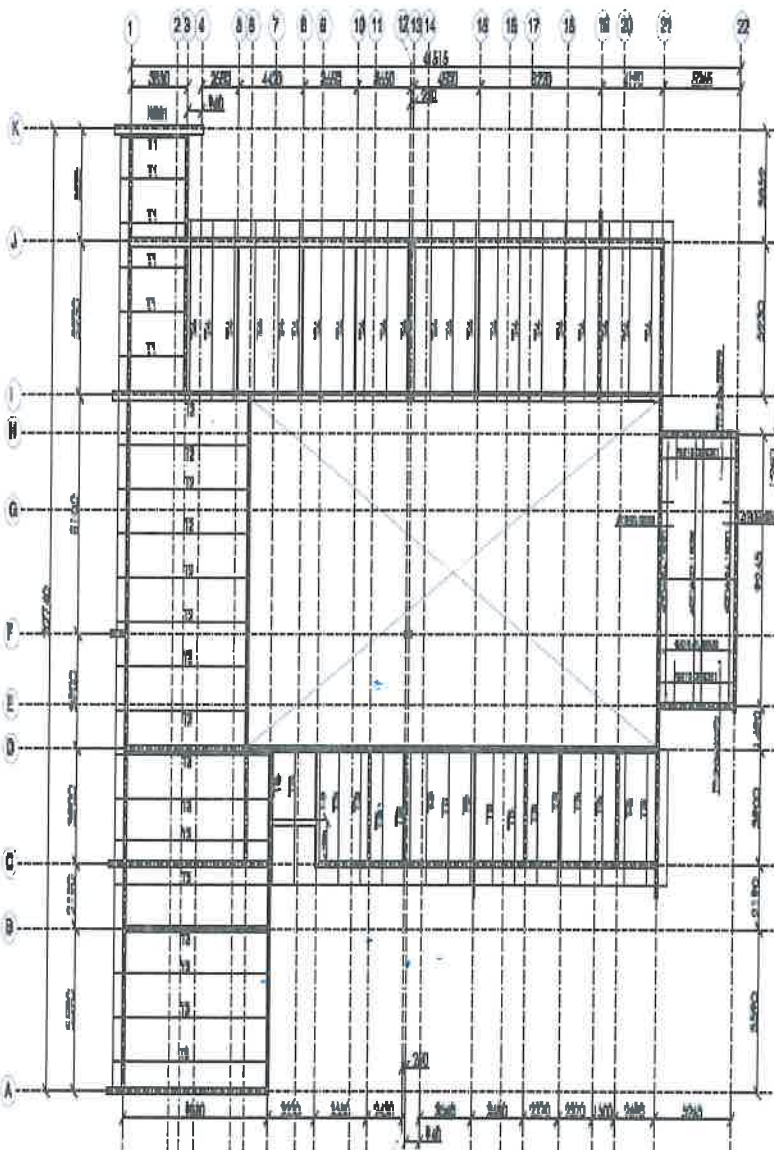
SCALE: 1:25

Design Notes: 1. THIS DRAWING SHALL BE FOR INFORMATION ONLY AND NOT TO BE USED FOR CONSTRUCTION WITHOUT THE APPROVAL OF THE ARCHITECT.	No. 10 Revision Date	Prepared by: [Signature] Checked by: [Signature] Date: [Date]	Project: PROJECT FOR THE CONSTRUCTION OF THE [Project Name]	Drawing Title: LOWER ROOF LAYOUT PLAN	Designed by: [Signature] Checked by: [Signature] Scale: 1:25 Date: [Date]	Approved by: [Signature] Date: [Date]
	[Empty space for notes]	[Empty space for notes]	[Empty space for notes]	[Empty space for notes]	[Empty space for notes]	[Empty space for notes]







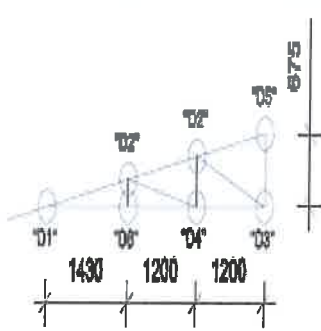


REINFORCEMENT DETAILS FOR ROOF SLAB  
SCALE: 1/8"

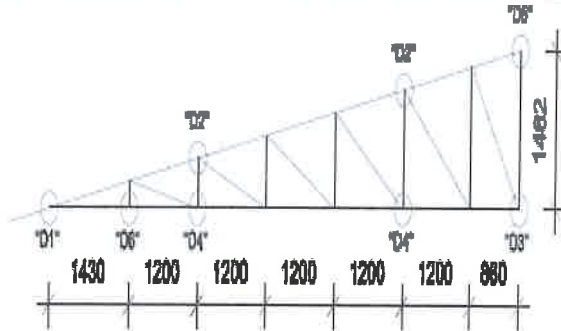


Check Item 1. THIS DRAWING SHALL BE FOR CONSTRUCTION INTO ARCHITECTURAL AND OTHER SUBMITTAL DRAWING	NO	REVISION	DATE	BY	REASON	Design by: J. DRETTA Checked by: A. PHILLIPS Scale: 1/8" = 1'-0" Date: 03/28/08	Approved by: J. DRETTA Date: 03/28/08

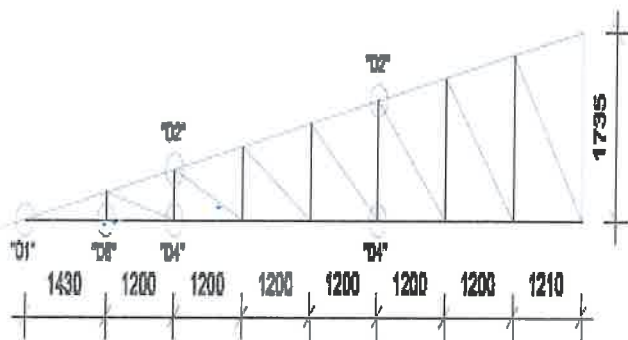




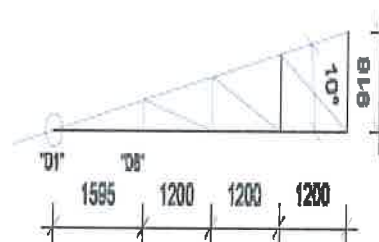
ROOF TRUSS ELEVATION T101



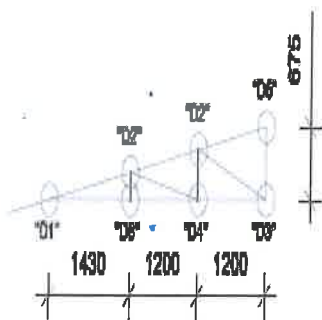
ROOF TRUSS ELEVATION T102



ROOF TRUSS ELEVATION T103

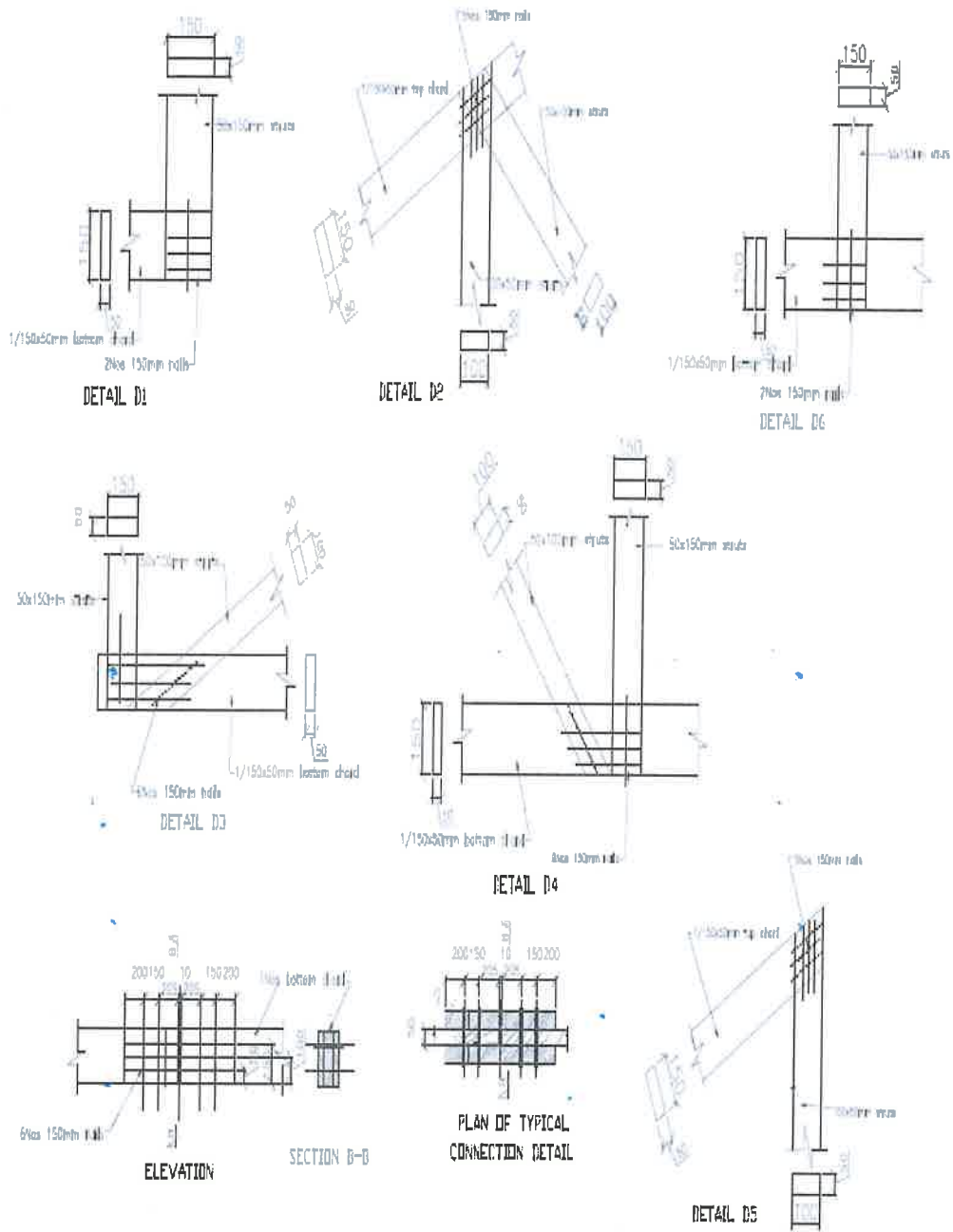


ROOF TRUSS ELEVATION T104

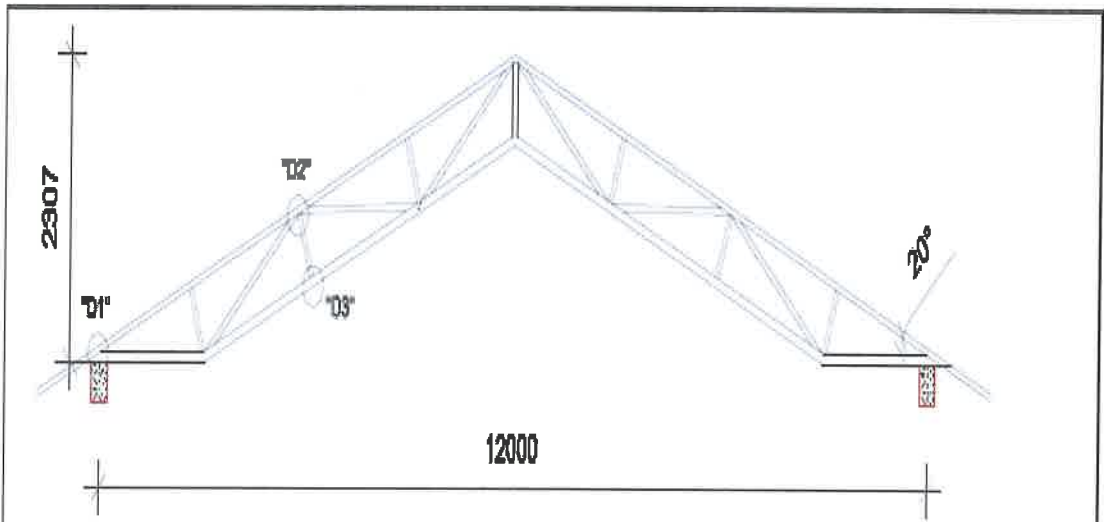


ROOF TRUSS ELEVATION T105

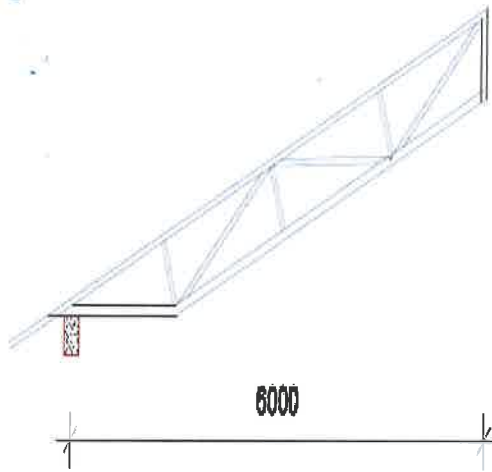
General Notes:		No.	Description	Qty	By	Date	Client: MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, WELFARE, ELDERLY AND CHILDREN Public FEDERAL GOVERNMENT OF MALAYSIA DEPARTMENT OF PROFESSIONAL REGULATION	Drawing Title: LOW RISE TRUSS ELEVATION	Company:	MARICA	Scale:	AS SHOWN	Sheet No:	01/01
									Drawn by:	MM	Site:	MAX 201		



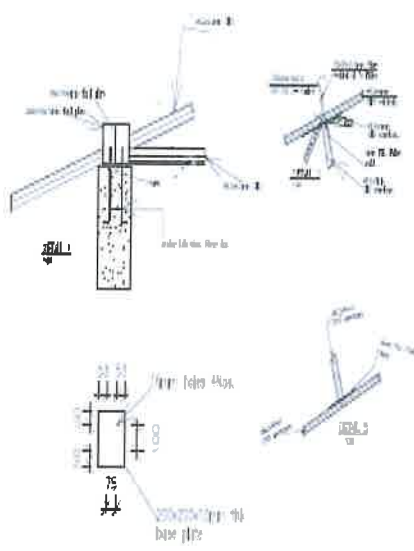
Revised Notes		No.	Revised	Date	By	Checked	CLIENT: PROVINCE OF HEALTH, COMPLEXITY DEVELOPMENT, RESCUE, SENIOR AND CHILDREN PROJECT: CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT (EMERGENCY REGIONAL, REGIONAL HOSPITAL)	Drawing Title: FLOOR TRUSS CONNECTION DETAILS	Company:	Project No.:	Sheet No.:



UPPER ROOF TRUSS ELEVATION T1/5



UPPER ROOF TRUSS ELEVATION T2/5



Technical Notes:    	No.    Description    Qty    Unit    Quantity (Total)	Client: MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, AND SOCIAL SERVICES Project: REPAIR AND MAINTENANCE OF EMERGENCY HOSPITAL, DEPARTMENT OF HEALTH SERVICES, NATIONAL HOSPITAL	Drawing Title: UPPER ROOF TRUSS CONNECTIONS	Company:    PROJECT:    Approval:
				Date:    05/20/2017    MR
				Scale:    1:50    By: JIC
				Date:    05/20/2017    08:17

PROPOSED CONSTRUCTION OF EMERGENCY MEDICAL  
DEPARTMENT(EMD) FOR GENERAL REFERRAL  
HOSPITAL.

ELECTRICAL, FIRE ALARM SYSTEM, ICT SERVICES DRAWINGS  
AND  
MECHANICAL SERVICES DRAWINGS

CLIENT:

MINISTRY OF HEALTH, COMMUNITY  
DEVELOPMENT, GENDER, ELDERLY AND CHILDREN,

## PROPOSED CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT (EMD) FOR GENERAL REFERRAL HOSPITAL. ELECTRICAL LEGEND AND GENERAL NOTES

SYMBOL	DESCRIPTION	GENERAL NOTES
	1. All work shall be in accordance with the approved drawings and specifications.	1. All work shall be in accordance with the approved drawings and specifications.
	2. All work shall be in accordance with the approved drawings and specifications.	2. All work shall be in accordance with the approved drawings and specifications.
	3. All work shall be in accordance with the approved drawings and specifications.	3. All work shall be in accordance with the approved drawings and specifications.
	4. All work shall be in accordance with the approved drawings and specifications.	4. All work shall be in accordance with the approved drawings and specifications.
	5. All work shall be in accordance with the approved drawings and specifications.	5. All work shall be in accordance with the approved drawings and specifications.
	6. All work shall be in accordance with the approved drawings and specifications.	6. All work shall be in accordance with the approved drawings and specifications.
	7. All work shall be in accordance with the approved drawings and specifications.	7. All work shall be in accordance with the approved drawings and specifications.
	8. All work shall be in accordance with the approved drawings and specifications.	8. All work shall be in accordance with the approved drawings and specifications.
	9. All work shall be in accordance with the approved drawings and specifications.	9. All work shall be in accordance with the approved drawings and specifications.
	10. All work shall be in accordance with the approved drawings and specifications.	10. All work shall be in accordance with the approved drawings and specifications.
	11. All work shall be in accordance with the approved drawings and specifications.	11. All work shall be in accordance with the approved drawings and specifications.
	12. All work shall be in accordance with the approved drawings and specifications.	12. All work shall be in accordance with the approved drawings and specifications.
	13. All work shall be in accordance with the approved drawings and specifications.	13. All work shall be in accordance with the approved drawings and specifications.
	14. All work shall be in accordance with the approved drawings and specifications.	14. All work shall be in accordance with the approved drawings and specifications.
	15. All work shall be in accordance with the approved drawings and specifications.	15. All work shall be in accordance with the approved drawings and specifications.
	16. All work shall be in accordance with the approved drawings and specifications.	16. All work shall be in accordance with the approved drawings and specifications.
	17. All work shall be in accordance with the approved drawings and specifications.	17. All work shall be in accordance with the approved drawings and specifications.
	18. All work shall be in accordance with the approved drawings and specifications.	18. All work shall be in accordance with the approved drawings and specifications.
	19. All work shall be in accordance with the approved drawings and specifications.	19. All work shall be in accordance with the approved drawings and specifications.
	20. All work shall be in accordance with the approved drawings and specifications.	20. All work shall be in accordance with the approved drawings and specifications.

NOTES:

1. All work shall be in accordance with the approved drawings and specifications.

PROJECT:

PROPOSED CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT FOR GENERAL REFERRAL HOSPITAL.

CLIENT:

MINISTRY OF HEALTHCARE  
DEVELOPMENT ORGANIZATION  
CALCUTTA

DESIGNER:

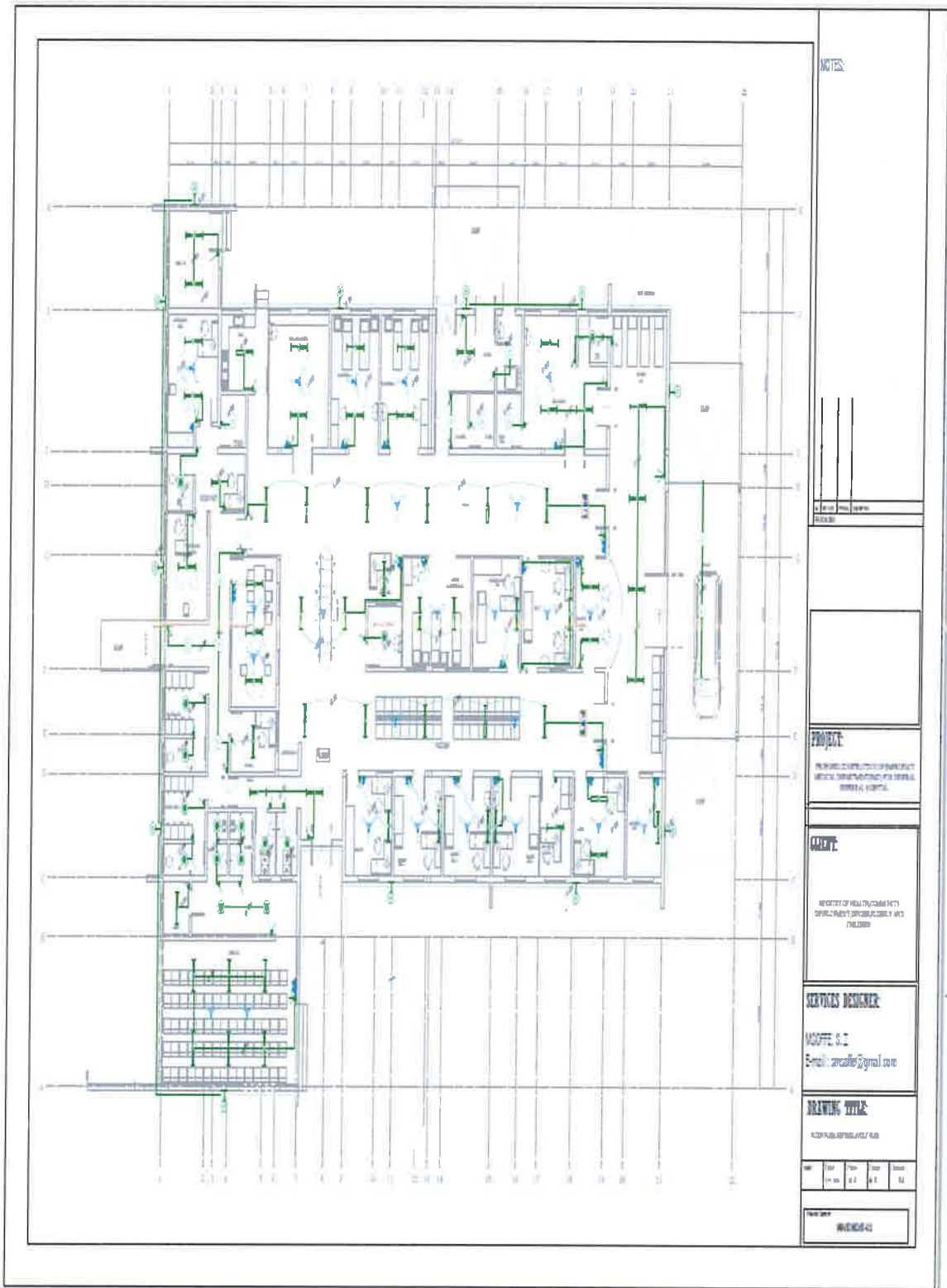
MAHMOUD S. S.  
E-mail: mahmouds@gmail.com

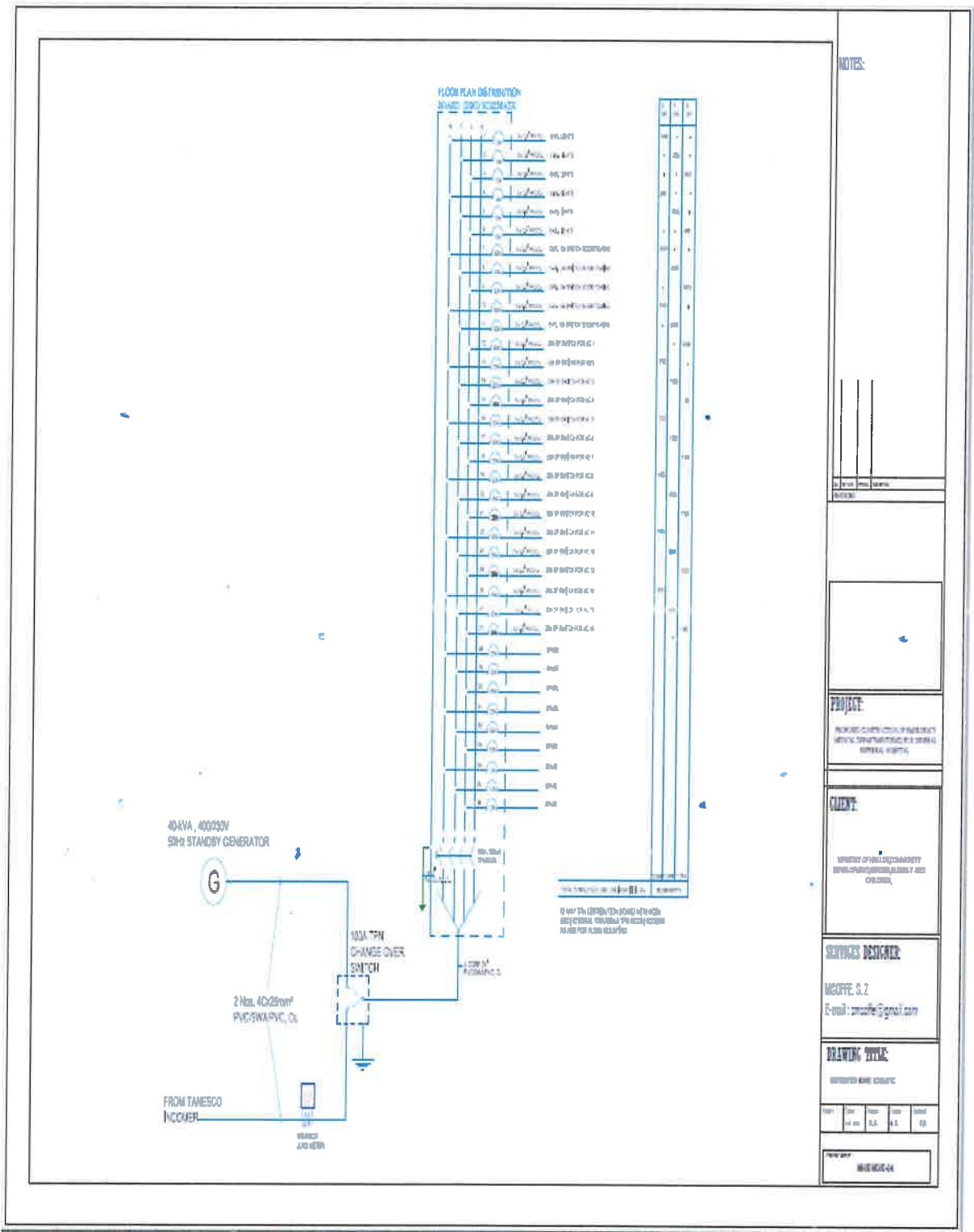
DRAWING TYPE:

ELECTRICAL LEGEND AND GENERAL NOTES

DATE: 11/11/2011

SCALE: 1:1





NOTES:




**PROJECT:**  
 PROJECT CONSTRUCTION OF PRIMARY  
 MEDICAL CONSULTATION IN A SPECIAL  
 GENERAL HOSPITAL

**CLIENT:**  
 MINISTRY OF PUBLIC HEALTH  
 GENERAL SUPERINTENDENT GENERAL  
 HOSPITAL

**SERVICES DESIGNER:**  
 MCOFFE, S.Z  
 E-mail: smcoffe@gmail.com

**DRAWING TITLE:**  
 STANDBY GENERATOR

Rev				
1		0.5	0.5	0.5

DATE: 2010-04-04



### FIRE DETECTION & ALARM SYSTEM LEGEND

S/Ns	DESCRIPTION	SYMBOLS	MOUNTING
1	Addressable fire control panel Firefire 1 loop, 6 zones as FFB 6		1300mm AFFL
2	Optical Smoke detectors as ODS-OPT, Addressable complete with base		OCL
3	Breakglass Addressable, complete with surface box as FMBL-200R		1400mm AFFL
4	Firebell Addressable sounder, finish as AB6C14		300mm BCL
5	Fireproof cable, 1.5mm square twin with earth in 20mm PVC conduit	NA	In conduit
6	Carbon dioxide cylinder, 4.5kg complete with mounting brackets		1200mm AFFL
7	Dry powder cylinder, 4.5kg complete with mounting brackets		1200mm AFFL
8	Heat detectors as AP6-FTD Addressable complete with base		OCL

**NOTE**

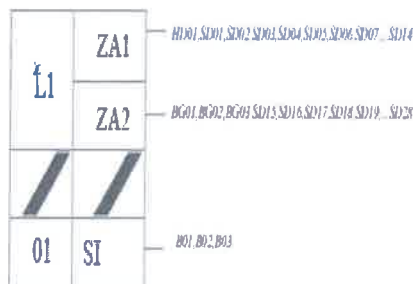
AFFL - Above Floor Finish Level

BCL - Below Ceiling Level

OCL - On Ceiling Level

mm - Millimeter

### ADDRESSABLE FIRE ALARM CONTROL PANEL (FACP)



FIRE DETECTION AND ALARM PANEL SCHEMATIC  
(2 FIBRE OPTIC LOOPS, 2 ZONES FIRE PANEL, CW BATTERIES (72 HOUR STANDBY))

NOTES:

**PROJECT:**

PROPOSED CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT FOR GENERAL HOSPITAL

**CLIENT:**

MINISTRY OF HEALTH (EMERGENCY DEPARTMENT) GENERAL HOSPITAL, DUBLIN

**SERVICES DESIGNER:**

MCOFFE S.C.  
E-mail: s.mccoffe@gmail.com

**DRAWING TITLE:**

FIRE DETECTION AND ALARM PANEL SCHEMATIC FOR THE ALARM CONTROL PANEL

REV	DATE	BY	CHKD	STATUS
01	12/11/11	S.C.	S.C.	ISSUED FOR TENDERS

SCALE: AS SHOWN

## AIR CONDITION SERVICE LIST OF DRAWINGS

S/No.	DESCRIPTION	DRAWING No.	DATE REV.
1	LIST OF DRAWINGS	MH/EMD/ME-AC/00	OCT,2019
2	SYMBOLS, LEGEND & GENERAL NOTES& SCHEDULE OF EQUIPMENT	MH/EMD/ME-AC/01	OCT,2019
3	AIR CONDITIONING EQUIPMENT & PIPING LAYOUT GROUND FLOOR PLAN	MH/EMD/ME-AC/02	OCT,2019

NOTES:

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PROJECT:

REPOSED CONSTRUCTION OF EMERGENCY MEDICAL TREATMENT UNIT IN GENERAL HOSPITAL HOSPITAL.

CLIENT:

MINISTRY OF HEALTH COMMUNITY DEVELOPMENT, OCCUPATIONAL SAFETY AND HEALTH.

SERVICES DESIGNER:

PATRICIA D. C.  
E-mail : patdcp@gmail.com

DRAWING TITLE:

LIST OF DRAWINGS AIR CONDITIONING

--	--	--	--	--	--

DATE: 08/10/2019

**SCHEDULE OF EQUIPMENTS**

NO.	DESCRIPTION	UNIT	QUANTITY	POWER SUPPLY	POWER (KW)	WTR SUPPLY
1	For Treatment and Supply of water	1	01	220V/50Hz	1.8	1.8
2	For Treatment and Supply of water	1	01	220V/50Hz	1.8	1.8
3	For Treatment and Supply of water	1	01	220V/50Hz	1.8	1.8
4	For Treatment and Supply of water	1	01	220V/50Hz	1.8	1.8
5	For Treatment and Supply of water	1	01	220V/50Hz	1.8	1.8
6	For Treatment and Supply of water	1	01	220V/50Hz	1.8	1.8
7	For Treatment and Supply of water	1	01	220V/50Hz	1.8	1.8
8	For Treatment and Supply of water	1	01	220V/50Hz	1.8	1.8
9	For Treatment and Supply of water	1	01	220V/50Hz	1.8	1.8
10	For Treatment and Supply of water	1	01	220V/50Hz	1.8	1.8

**SYMBOLS:**

 Water supply  
 Sewerage  
 Electrical supply

## GENERAL NOTES

1. INSTALLATION OF EQUIPMENT AND FITTINGS SHALL BE CARRIED OUT BY APPROVED CONTRACTOR TO RELEVANT CODES OF PRACTICE STANDARDS AND ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. REFRIGERANT PIPES SHALL BE DEOXIDIZED PHOSPHOROUS SEAMLESS COPPER OR EQUIVALENT CONFORMING BS 2771-72
3. REFRIGERANT PIPES SHALL BE INSULATED AS RECOMMENDED BY MANUFACTURER.
4. INSULATION MATERIALS SHALL BE CHEMICAL GROSS LINKED THICKNESS 13mm.
5. PIPE WORK SHALL FOLLOW THE HORIZONTAL LINES OF SPACE PROVIDED IN THE CEILING VOID AND VERTICAL ALONG SHAFTS. PROPER PROTECTIVE-SLEEVE SHALL BE PROVIDED WHERE PIPES RUN WALLS AND SLAB
6. CONDENSATE WATER DISPOSAL PIPE SHALL BE RIGID-PVC OR EQUIVALENT AND SHALL BE INSULATED BY MATERIALS AS SPECIFIED AND THICKNESS NOT LESS THAN 6mm.
7. POSITION OF UNITS AND ROUTE FOR TRUNKING ARE FOR GUIDANCE ONLY EXACT POSITIONS AND ROUTES SHALL BE AGREED ON SITE.
8. ALL NECESSARY SUSPENSION BOLTS AND BRACKETS SHALL BE INCLUDED.
9. ELECTRICAL INSTALLATION SHALL BE CARRIED OUT BY APPROVED CONTRACTOR AND IN ACCORDANCE WITH IEEE REGULATIONS.

NOTES:

1	2	3	4
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**PROJECT:**  
 REPAIRING AND RECONSTRUCTION OF MEDICAL EQUIPMENT TRUCKS FOR THE DEPARTMENT OF HEALTH

**CLIENT:**  
 MINISTRY OF HEALTH (MEDICAL EQUIPMENT TRUCKS) DEPARTMENT OF HEALTH

**SERVICES DESIGNER:**  
 PATRICK O. S.  
 E-mail: patricks@gmail.com

**DRAWING TITLE:**  
 LIST OF LEGEND SYMBOLS AND GENERAL NOTES

NO.	REV.	DATE	BY	CHKD.	APP'D.

**PROJECT NO:**  
 08-VE-MOR-04-01

## GAS SERVICE LIST OF DRAWINGS

S/No.	DESCRIPTION	DRAWING No.	DATE/REV.
1	LIST OF DRAWINGS	MH/EMD/GS-00	OCT,2019
2	SYMBOLS, LEGEND & GENERAL NOTES& SCHEDULE OF EQUIPMENT	MH/EMD/GS-01	OCT,2019
3	MEDICAL GAS INSTALLATION EQUIPMENT & PIPING LAYOUT GROUND FLOOR PLAN	MH/EMD/GS-02	OCT,2019

NOTES

1  
2  
3

**PROJECT:**  
 UNIVERSITY OF ALBERTA  
 MEDICAL DEVELOPMENT FOR  
 GENERAL HOSPITAL, EDMONTON













**CLIENT:**  
 UNIVERSITY OF ALBERTA  
 MEDICAL DEVELOPMENT FOR  
 GENERAL HOSPITAL, EDMONTON

**SERVICES DESIGNER:**  
 PATRICK D. S.  
 E-mail : pchapo@gmail.com

**DRAWING TITLE:**  
 LIST OF DRAWINGS GAS INSTALLATION

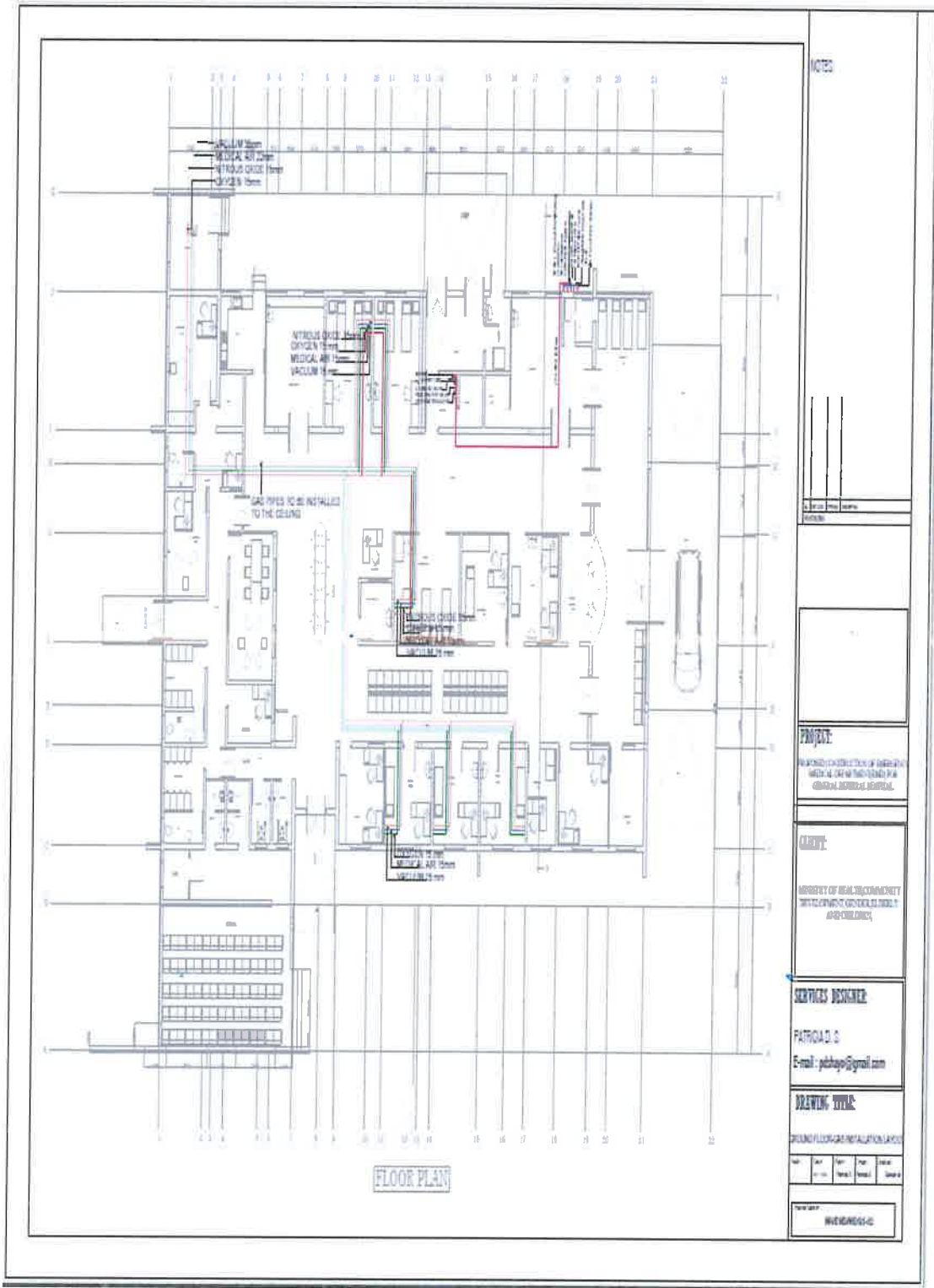
**DRAWING No.:**  
 MH/EMD/GS-00

# LEGEND

-  OXYGEN TERMINAL.
-  NITROUS OXIDE TERMINAL.
-  MEDICAL AIR TERMINAL.
-  VACUUM TERMINAL.
-  OXYGEN MED GAS LINE VALVE.
-  NITROUS OXIDE MED GAS LINE VALVE
-  MED AIR 4 BAR LINE VALVE
-  VACUUM MED LINE VALVE
-  LPG NON RETURN VALVE.
-  LPG QUARTER TURN VALVE.
-  PANIC SHUTOFF VALVE.
-  LPG REGULATOR

NOTES:

PROJECT: HAYWARD HOSPITALS GROUP MEDICAL GAS PIPING FOR HAYWARD HOSPITALS GROUP												
CALCIFY: MINISTRY OF HEALTH COMMUNITY SERVICES DEVELOPMENT, DESIGN AND CONSTRUCTION												
ENGINEER/ARCHITECT: PATRICK G. E-mail: pat@pgo@gmail.com												
DRAWING TITLE: LIST OF LEGEND SYMBOLS AND GENERAL NOTES												
<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>CHKD.</th> <th>ISSUED</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	BY	CHKD.	ISSUED	REVISION						
NO.	DATE	BY	CHKD.	ISSUED	REVISION							
DRAWN BY: HAYWARD HOSPITALS GROUP												





## PLUMBING SERVICE LIST OF DRAWINGS

S/No.	DESCRIPTION	DRAWING No.	DATE/REV.
1	LIST OF DRAWINGS PLUMBING	MH/EMD/ME-PL/00	OCT,2019
2	SYMBOLS, LEGEND & GENERAL NOTES& SCHEDULE OF EQUIPMENT	MH/EMD/ME-PL/01	OCT,2019
3	WATER SUPPLY LAYOUT GROUND FLOOR PLAN	MH/EMD/ME-WS/02	OCT,2019
4	WATER SUPPLY LAYOUT UNDERGROUND TANK DETAILS	MH/EMD/ME-WS/03	OCT,2019
5	WASTE WATER LAYOUT GROUND FLOOR PLAN	MH/EMD/ME-WS/04	OCT,2019
6	MANHOLE DETAILS	MH/EMD/ME-WS/05	OCT,2019
7	SEPTIC TANK DETAILS	MH/EMD/ME-WS/06	OCT,2019
8	SOAK AWAY PIT DETAILS	MH/EMD/ME-WS/07	OCT,2019

NOTES

1  
2  
3  
4  
5  
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8

DATE

PROJECT

REPUBLICAN DISTRICT COLLEGE OF ENGINEERING  
NEW ALI TRIPURA UNIVERSITY FOR  
GENERAL ADMISSIONS

CLIENT

MINISTRY OF HEALTH COMMUNITY  
WELFARE AND SOCIAL SERVICES  
AND CHILDREN

SERVICES PROVIDER

PATRICKA D. S.  
Email : patricka@signal.com

DRAWING TITLE

LIST OF DRAWINGS PLUMBING

DATE	BY	CHKD	APPD	DATE

DATE

**LEGEND**

-  OIL WATER TIE
-  SOIL WATER TIE
-  GAS WATER TIE
-  TO TIE
-  TIE
-  FIVE FLOOR FLOOR
-  HOLE
-  TIE
-  TIE
-  TIE
-  HOLE
-  STEEL
-  LOFT
-  HEAT
-  HOLE
-  OIL
-  WATER

**NOTES**

- 1. ALL TIE LINES SHALL BE 1/2" DIA. UNLESS OTHERWISE SPECIFIED.
- 2. ALL TIE LINES SHALL BE 1/2" DIA. UNLESS OTHERWISE SPECIFIED.
- 3. ALL TIE LINES SHALL BE 1/2" DIA. UNLESS OTHERWISE SPECIFIED.
- 4. ALL TIE LINES SHALL BE 1/2" DIA. UNLESS OTHERWISE SPECIFIED.
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- 10. ALL TIE LINES SHALL BE 1/2" DIA. UNLESS OTHERWISE SPECIFIED.

**TIE**

- 1. ALL TIE LINES SHALL BE 1/2" DIA. UNLESS OTHERWISE SPECIFIED.
- 2. ALL TIE LINES SHALL BE 1/2" DIA. UNLESS OTHERWISE SPECIFIED.
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- 9. ALL TIE LINES SHALL BE 1/2" DIA. UNLESS OTHERWISE SPECIFIED.
- 10. ALL TIE LINES SHALL BE 1/2" DIA. UNLESS OTHERWISE SPECIFIED.

**NOTES**

PROJECT: **MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT AND SOCIAL SERVICES**

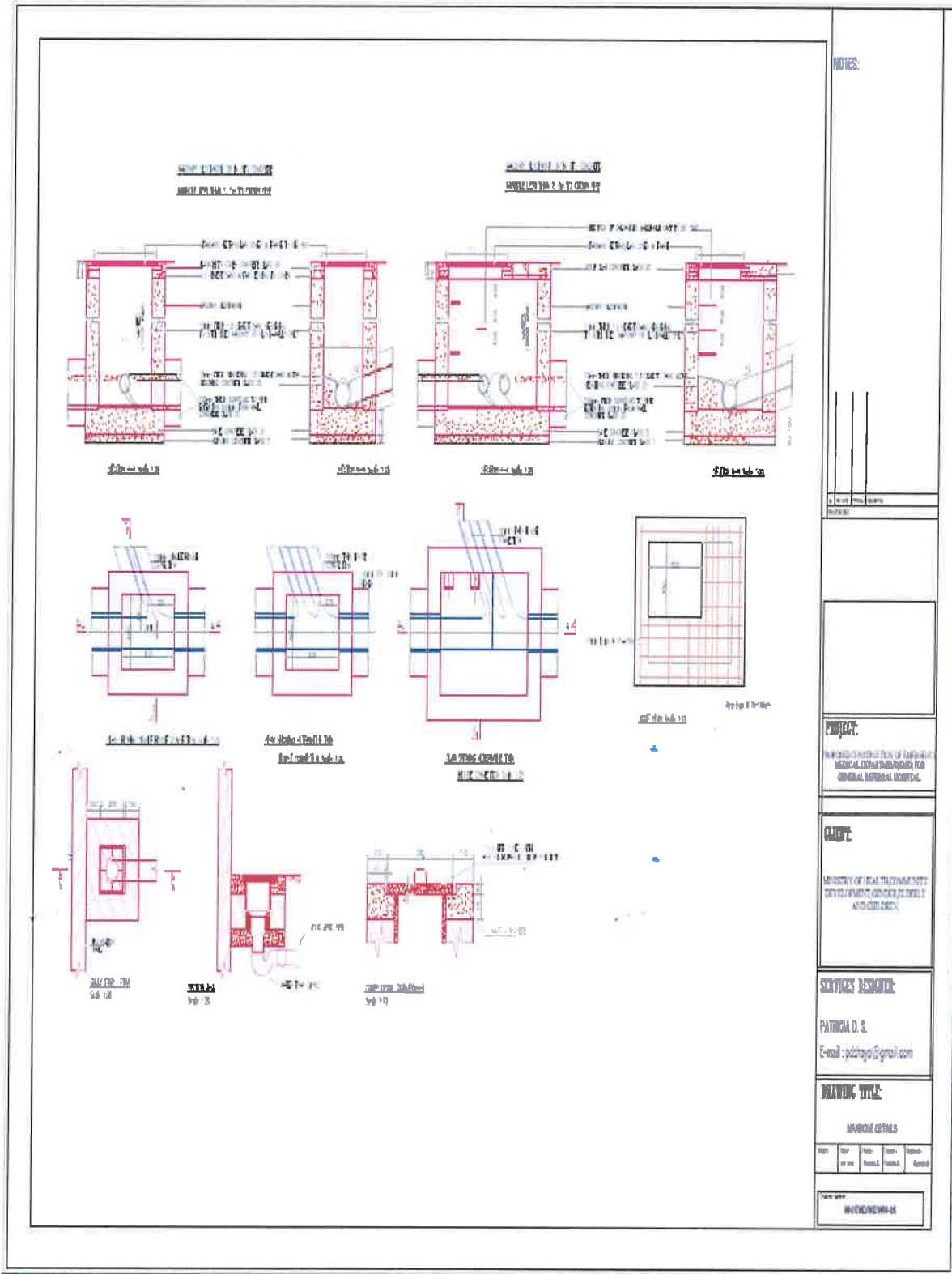
CADRE: **MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT AND SOCIAL SERVICES**

DESIGNER: **PAULINA D. S.**  
Email: paulina@paulina.com

DRAWING TITLE: **LIST OF LIQUID PIPES AND CONNECTIONS**

No.	Rev.	Date	By	Check	Approved

Scale: **1/4" = 1'-0"**



NOTES:

1. See page 100 for notes.

**PROJECT:**  
 FEDERAL INSTITUTION OF MEDICAL RESEARCH TECHNOLOGIES FOR GENERAL HOSPITAL HOSPITAL

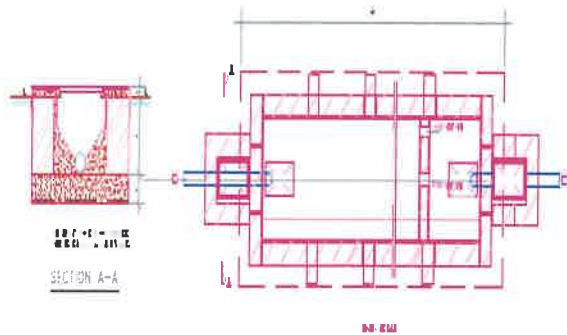
**CLIENT:**  
 MINISTRY OF HEALTH COMMUNITY DEVELOPMENT, GENETICS, DEBILITY AND CHILDREN

**SERVICES DESCRIBED:**  
 PATRICK D. S.  
 E-mail: pds@pds.com

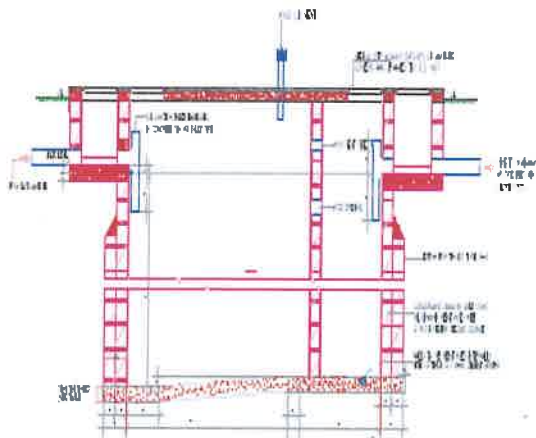
**DRAWING TITLE:**  
 ANCHORAGE DETAILS

NO.	REV.	DATE	BY	CHKD.	APP.

Drawn by: ANCHORAGE DETAILS



PLAN-SEPTIC TANK



LONGITUDINAL SECTION

- NOTE**
1. ALL CONCRETE TO BE GRADE 20, UNLESS OTHERWISE STATED.
  2. ALL TRENCHES AND WALLS TO BE 150MM WIDE UNLESS OTHERWISE STATED.
  3. REINFORCEMENT TO BE APPROX. 200MM DIA. UNLESS OTHERWISE STATED.

**TABLE 1**

S. NO.	TYPE	LENGTH	WIDTH	DEPTH	NO. OF REINFORCEMENT		THICKNESS
					1	2	
1	WALL	1.20	0.30	1.80	2	2	100
2	WALL	0.75	0.30	1.80	2	2	100
3	WALL	2.25	0.30	1.80	2	2	100
4	WALL	1.50	0.30	1.80	2	2	100
5	FLOOR	3.00	1.50	0.10	4	4	100
6	FLOOR	1.50	1.50	0.10	4	4	100
7	FLOOR	1.50	1.50	0.10	4	4	100
8	FLOOR	1.50	1.50	0.10	4	4	100
9	FLOOR	1.50	1.50	0.10	4	4	100

NOTE: TABLE 1 - TO BE SUPPLIED WITH AS SHOWN IN LONGITUDINAL SECTION.

\* SEPTIC TANK TYPE NO. 8 WILL BE USED.

NOTES:

1. Refer to drawing sheet 10/2019/01/01.

**PROJECT:**

RESEARCH AND DEVELOPMENT OF INTEGRATED WASTE MANAGEMENT SYSTEM FOR URBAN AREAS.

**CLIENT:**

MINISTRY OF HEALTH AND FAMILY DEVELOPMENT, GOVERNMENT OF KENYA.

**SERVICES DESIGNED:**

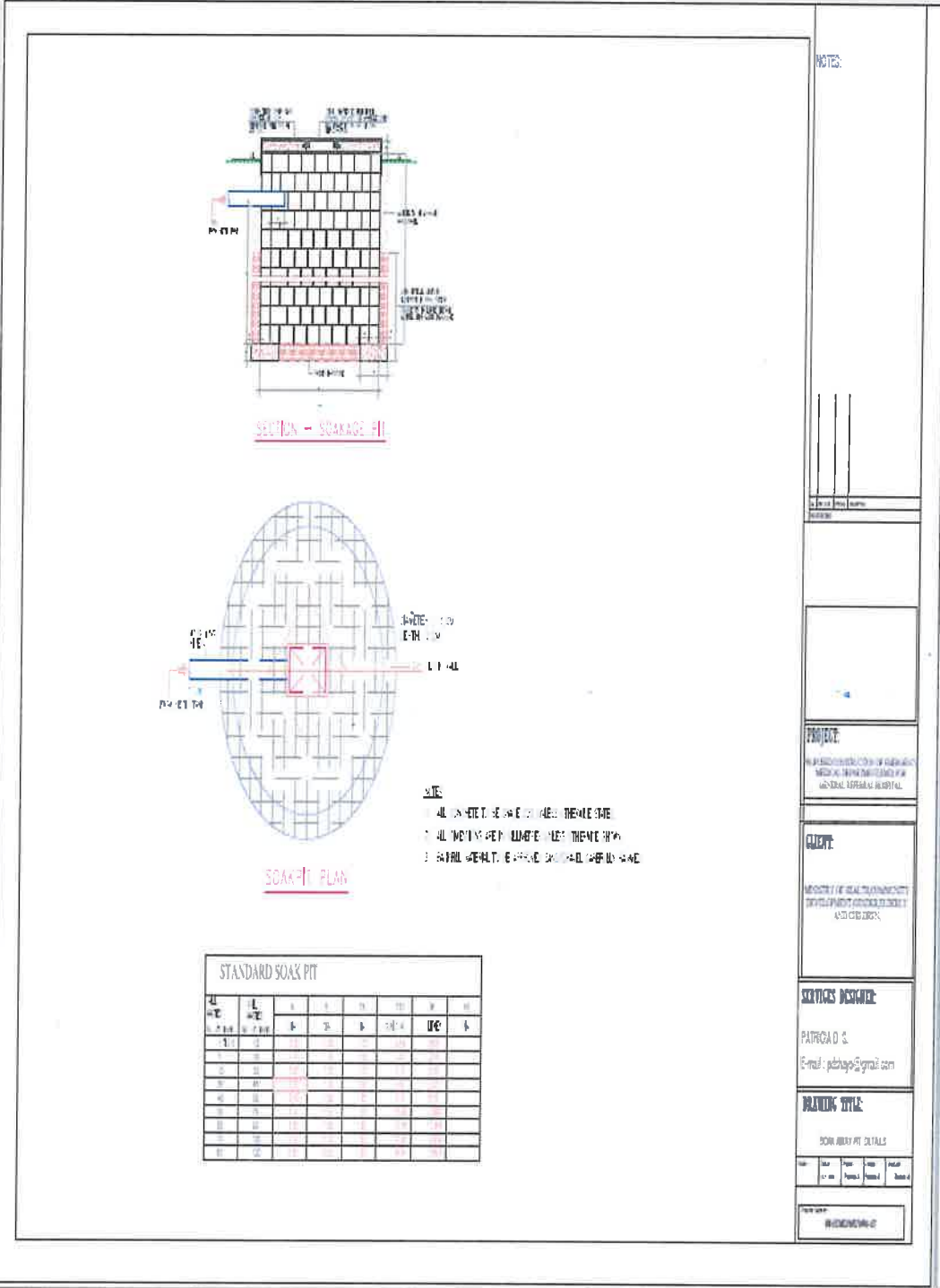
PATRICIA D. G.  
E-mail: patygo@gmail.com

**DRAWING TITLE:**

SEPTIC TANK DETAILS

NO.	DATE	BY	CHKD.	STATUS
1	10/2019/01/01	Patricia D. G.	Patricia D. G.	Final

Scale: 1:100



NOTES:



**PROJECT:**  
 HUMAN RESOURCE CENTER OF GUJARATI  
 MEDICAL TRAINING INSTITUTION FOR  
 GENERAL AFFAIRS HOSPITAL

**CLIENT:**  
 MINISTRY OF HEALTH AND FAMILY  
 DEVELOPMENT GUJARATI STATE  
 (VAHEDI DISTRICT)

**SKETCHES DESIGNER:**  
 PATRICK D.S.  
 E-mail: patrick@gmail.com

**PLANNING TITLE:**  
 STANDARD SOAK PIT DETAILS

NO.	DATE	ISSUE	REVISION	BY	DATE

SCALE: 1:100

- NOTE:**
- 1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED
  - 2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED
  - 3. MATERIALS TO BE USED SHALL BE AS PER SPECIFICATIONS

NO.	L	B	DEPTH		NO. OF LAYERS	NO. OF BRICKS	NO. OF CEMENT BAGS	NO. OF SAND	NO. OF GRAVEL
			1	2					
1	1.0	1.0	0.3	0.3	1	1000	10	100	100
2	1.2	1.2	0.3	0.3	1	1200	12	120	120
3	1.5	1.5	0.3	0.3	1	1500	15	150	150
4	1.8	1.8	0.3	0.3	1	1800	18	180	180
5	2.0	2.0	0.3	0.3	1	2000	20	200	200
6	2.2	2.2	0.3	0.3	1	2200	22	220	220
7	2.4	2.4	0.3	0.3	1	2400	24	240	240
8	2.6	2.6	0.3	0.3	1	2600	26	260	260
9	2.8	2.8	0.3	0.3	1	2800	28	280	280
10	3.0	3.0	0.3	0.3	1	3000	30	300	300

## SCHEDULE OF MATERIALS FOR CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT (EMD)

DGEC

Proposed EMD Block at Regional Referral Hospital

SCHEDULE OF MATERIALS FOR CONSTRUCTION OF EMERGENCY MEDICAL DEPARTMENT (EMD) SCHEDULE NO 1				
	DESCRIPTION	QTY	UNIT	PRICE AMOUNT
<b>ELEMENT NO.1- SUBSTRUCTURE</b>				
<b>ALL PROVISIONAL</b>				
A	200mm hardcore stone - (4.5 m <sup>3</sup> Lorry)	43	Trip	225,000/- = 9,675,000/-
B	Sand blinding 4.5m <sup>3</sup>	9	Trips	157,500/- = 1,417,500/-
C	soil sterilization over hardcore bed.	10	Clupa	18,000/- = 180,000/-
D	Earth filling selected imported pure sand, well compacted in 300mm thick layers; to make up levels under the floors (4.5m <sup>3</sup> ) Trip	20	Trip	135,000/- = 2,700,000/-
E	Load up surplus excavated materials and remove from site	20	Trip	135,000/- = 2,700,000/-
<b>CONCRETE WORK</b>				
80mm blinding 1:4:8				
F	50 Kgs 42.5	157	Bags	12,000/- = 1,962,000/-
G	sand 4.5m <sup>3</sup> trip	5	Trips	157,500/- = 787,500/-
H	aggregates (1/2")	10	Trips	382,000/- = 3,820,000/-
<b>Plain concrete grade 20' (1:2:4)</b>				
150mm over site bed				
K	cement - 50 Kgs 42.5	1,194	Bags	18,000/- = 21,492,000/-
L	sand 4.5m <sup>3</sup> trip	19	Trips	157,500/- = 2,992,500/-
M	aggregates- 1/2"	38	Trips	382,000/- = 14,595,000/-
<b>Reinforcement</b>				
N	Fabric reinforcement to BS 4483 ref. A252 weighing 3.95 kg per square metre laid in bed and ramps	346	Na	35,000/- = 12,110,000/-
Page No: 1/11			Totals	74,835,000/-

END





MOHCD/CR

Proposed IMD Block at Regional Referral Hospital

ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
	<b>Reinforced concrete grade 20 to:-</b>				
	<u>Ground beams</u>				
A	cement - 50 Kgs 42.5	216	Bags	18,000/=	3,888,000/=
B	sand	3.36	Trips	157,500/=	529,200/=
C	aggregates- 3/4"	6.72	Trips	382,500/=	2,579,400/=
D	M16 Reinforcement bars;12 metres long	199	No	48,000/=	9,552,000/=
E	M8 Reinforcement bars;12 metres long	205	No	24,000/=	7,080,000/=
F	Binding wires	15	Kgs	4,000/=	60,000/=
	<u>Columns bases &amp; starter columns</u>				
G	cement- 50 Kgs 42.5	36	Bags	18,000/=	648,000/=
H	sand	0.85	Trips	157,500/=	88,200/=
I	aggregates 3/4"	1.72	Trips	382,500/=	427,400/=
	<u>Reinforcement bars;12 metres long</u>				
J	M16 Reinforcement bars;12 metres long	40	No	25,000/=	1,000,000/=
K	M8 Reinforcement bars;12 metres long	25	No	24,000/=	600,000/=
L	Binding wires	6	Kgs	4,000/=	24,000/=
	<u>Walling</u>				
	<u>Solid concrete blocks to BS 2027 type 'A' bedded and jointed in cement and sand mortar class</u>				
M	6 cement and sand blocks- 5Mpa (20mm thick)	8,527	No	1700/=	14,495,900/=
N	<u>block making mortar</u>				
O	cement - 50 Kgs 42.5	244	Bags	18,000/=	4,392,000/=
P	sand	8	Trips	157,500/=	1,260,000/=
	<u>SIRALUX PRO-CHIP ISOFLEXIC JOINT for expansion joint sealant applied in accordance to Manufacturer's specifications to 15mm deep concrete slab</u>				
Q		27	M	20,000/=	540,000/=
	Page No. 1/12				
			Tshs.		47,156,100/=

IMD



ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
<b><u>Damp Proof Courses</u></b>					
A	DPM Sheets 1000 gauge	877	M <sup>2</sup>	3500/=	3,069,500/=
B	dpc :230mm wide	34	Roll	120,000/=	4,080,000/=
C	Allow cost for construction of reinforced ramps as per project manager's instructions	4	No	7,425,000/=	29,700,000/=
<b><u>15mm thick plaster to plinth level (1:4)</u></b>					
D	cement - 50 Kgs 42.5	15	Bags	180,000/=	2,700,000/=
E	sand for mortar	0.5	Trps	157,500/=	78,750/=
F	4lts black bituminous paint	8	4 Ltrs Tin	30,000/=	240,000/=
<b><u>Furnwork</u></b>					
G	1x8"x3.5m express or other approved	100	No	20,000/=	6,000,000/=
H	2x4"x3.5m struts	100	No	7,000/=	700,000/=
I	props	50	No	4,500/=	225,000/=
J	Marine boards - Bamboo (9mm thick)	50	No	70,000/=	3,500,000/=
K	Assorted nails	50	No	3500/=	175,000/=
L	To Collection				
	Page No. 1/13		Tshs.		48,038,200/=
<b><u>COLLECTION</u></b>					
	Page No. 1/11		Tshs.		74,335,500/=
	Page No. 1/12		Tshs.		47,156,100/=
	Page No. 1/13		Tshs.		48,838,250/=
<b>TOTAL SUBSTRUCTURE TO SUMMARY</b>					<b>169,509,200/=</b>

EMD-3



ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
<b>ELEMENT NO.2- SUPERSTRUCTURE</b>					
<b>FRAMES</b>					
<u>Reinforced concrete grade 20</u>					
<u>Ring beams, Columns and Horizontal suspended Slab</u>					
A	cement - 50 Kgs 42.5	534	Bags	18,000/=	9,612,000/=
B	sand	8	Trips	157,500/=	1,260,000/=
C	aggregates- 3-4"	16	Trips	382,000/=	6,120,000/=
<u>High yield hot rolled deformed steel bar to B.S. 4449:1969</u>					
D	Y12 Reinforcement bars 12 metres long	318	No.	25,000/=	7,950,000/=
E	Y8 Reinforcement bars 12 metres long	243	No.	24,000/=	5,832,000/=
F	binding wires	30	Kgs	4,000/=	120,000/=
<b>Walling</b>					
<u>Solid concrete blocks to B.S 2028 type 'A' bedded and jointed in cement and sand mortar (1:4)</u>					
G	6" cement and sand block- 5Mpa (230mm thick) block making mortar	18,876	No.	1700/=	32,089,200/=
H	cement - 50 Kgs 42.5	530	Bags	18,000/=	9,702,000/=
I	sand	18	Trips	157,500/=	2,835,000/=
<b>Walling</b>					
<u>Solid concrete blocks to B.S 2028 type 'A' bedded and jointed in cement and sand mortar (1:4)</u>					
J	6" cement and sand- 5Mpa (150mm thick)	2,763	No.	1700/=	4,697,100/=
<u>Block laying mortar ratio (1:6)</u>					
K	cement - 50 Kgs 42.5	39	Bags	18,000/=	1,402,000/=
L	sand	3	Trips	157,500/=	472,500/=
Page No. 124					
				1 shs.	82,111,700/=

EMD - 4



ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
<b>CONCRETE WORK</b>					
<u>Precast concrete grade "25" including hoisting to position, bedding and pointing in cement mortar (1:4)</u>					
A	<u>Lintels</u> 280 x 80mm rectangular lintel reinforced with 4 No 12mm diameter mild steel bars, 8mm diameter mild steel stirrups at 300mm centres and finished rough all round	119	M	9,000/=	1,071,000/=
B	<u>Cills</u> 280 x 80mm: weathered once, throated once; reinforced 4 No 12mm rolled mild steel bars, 8mm diameter mild steel links at 250mm centres; finish fair on top, two faces and part soffits.	148	M	8,000/=	1,184,000/=
<u>Precast concrete grade "25" louver block BS 2028 type "A" bedded and jointed in cement mortar (1:4)</u>					
C	200mm Wall built fair and flush (for waiting area, medical gas and power room)	167	M	35,000/=	5,845,000/=
D	Raking cutting; 230mm block wall	37	M	1,000/=	37,000/=
E	Materials in eaves filling; 230mm wide, 500mm high extreme including splay cutting	84	M	20,000/=	1,680,000/=
	Page No. 1/2/2		Tshs.		9,817,000/=
<b>COLLECTION</b>					
	Page No. 1/2/1		Tshs.		82,11,700
	Page No. 1/2/2		Tshs.		9,817,000/=
<b>TOTAL SUPERSTRUCTURE TO SUMMARY</b>				<b>TSHS</b>	<b>91,928,000/=</b>

EMD - 5



ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
<u>ELEMENT No. 3- DOORS</u>					
<u>Joinery</u>					
<u>Solid Core Flush Door to meet manufacturers' requirements as approved by the Project.</u>					
<u>Flush doors</u>					
<u>40mm thick Solid Core Flush Door; equally divided, comprising on both sides; 150mm metal kick plate at the bottom; 125mm metal bumper plate at the intermediate; top panel with slit having 6mm thick clear sheet glass faced both sides; styles and rails with approved hardwood timber quality; 4mm exterior quality plywood; 12mm hardwood lipping glued with approved adhesives, pinned on all edges to Project Manager's instructions</u>					
A	Ditto, Door size 1500x2500mm; Double Swing with SLIT 3	12	No	900,000/=	10,800,000/=
B	Ditto, Door size 2000x3000mm; Double Swing with SLIT 3	1	No	1,100,000/=	1,100,000/=
C	Ditto, Door size 900x2500mm; Double Swing with SLIT 3	4	No	500,000/=	2,000,000/=
D	Ditto, Door size 1000x2500mm	1	No	600,000/=	600,000/=
E	Ditto, Door size 900x2500mm, ditto	34	No	500,000/=	17,000,000/=
<u>Frames and the like: Prime Quality sawn hardwood Mninga or Mkongo; door frames, transoms with one labour; fillets, glazing and grounds:</u>					
F	45 x 150mm Frame	430	M	4,000/=	1,720,000/=
G	45 x 150mm Transome	66	M	4,000/=	264,000/=
Page No. 1/3/1				Tchs.	33,494,000/=

EMD - b



ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
A	45 x 156mm Mullions	52	M	4,000/=	208,000/=
B	15 x 45mm Moulded Architrave	894	M	2,000/=	1,788,000/=
C	40 x 15mm Sprayed glazing beads	208	M	500/=	104,000/=
D	15 x 100mm Grounds, plugged	160	M	4,000/=	640,000/=
<b>Glazing</b>					
<u>5mm Thick polished clear plate glass</u>					
E	Panes over 0.10 but not exceeding 0.50 square metres	42	M	85,000/=	3,570,000/=
<b>Ironmongery</b>					
<u>Supply and fix the following Iron mongery as per HAFEE or any other equal and approved quality fixed with screws to hardwood timber</u>					
F	Three levers mortise lockset complete with furniture	52	No	80,000/=	4,160,000/=
G	Toilet mortise lockset; indicator bolts or any other equal and approved quality; complete with furniture	8	No	80,000/=	640,000/=
H	150x75mm Aluminum stainless steel brass butt hinges	156	Pis	15,000/=	2,340,000/=
I	38mm diameter, rubber floor mounted door stopper	44	No	20,000/=	880,000/=
J	Automatic Overhead door closer	39	No	160,000/=	6,240,000/=
K	Hydraulic door closer hinges for double swing door	14	No	360,000/=	5,040,000/=
L	Name plates on doors; 'Gibbons' card holder with side entry; sample to be approved	52	No	35,000/=	1,820,000/=
M	Signage to all potential areas; to be identified by users; (sample to be approved)	52	No	35,000/=	1,820,000/=
Page No. 1/3/2				Tshs.	29,256,000/=

EMD - 7





ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
<b>ELEMENT No. 4- WINDOWS</b>					
<b>ALUMINIUM WORKS</b>					
<u>Supply and fix 100mm Natural Anodized Aluminium framing to pattern; neoprene gasket for bedding nylon brusher at the head; and rails and stainless screws approved by the Project Manager, including mosquito gauze and 6mm thick single glazed glass (either clear or frosted glass as shall be determined by the location usage); bedding in approved compound and fixing to concrete background; including all necessary accessories, ironmongery, cutting and pinning lugs and bedding frame in cement mortar</u>					
<i>(Note: To be executed by the Proven Specialist Contractor)</i>					
A	Window size 1600 x 1250mm overall height	24	No	300,000/=	7,200,000/=
B	Window size 1200 x 1500mm overall height	12	No	270,000/=	3,240,000/=
C	Window size 900 x 900mm overall height	6	No	122,000/=	732,000/=
D	Window size 1800 x 1200mm overall height	18	No	325,000/=	5,850,000/=
E	Window size 2400 x 1500mm overall height	1	No	540,000/=	540,000/=
<b>METAL WORKS</b>					
<u>Supply and fix mild steel grille comprising of Rectangular hollow section 38 x 38mm framing, 5 x 40mm flat bar welded to framing at 148mm centre cross grid to an approved pattern; complete with rust resistant hardware; including fixing to concrete or block work;</u>					
F	size 1500 x 1500mm overall height	19	No	202,500/=	3,847,500/=
G	size 1200 x 2000mm overall height	4	No	216,000/=	864,000/=
H	size 900 x 900mm overall height	7	No	73,000/=	511,000/=
<b>TOTAL WINDOWS TO SUMMARY</b>				Tshs.	<b>22,784,500/=</b>

EMD - 9



ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
<b><u>ELEMENT No. 5- ROOFING</u></b>					
<b><u>Roof covering</u></b>					
<b><u>Roofing: 28 gauge pre-painted green or any approved Colour with Resin Coated IT 5 troughed Alu/Zinc sheets; single length; supplied by Aluminium Africa Ltd. or equal and approved; fixed in accordance with the manufacturer's printed instructions</u></b>					
A	Coverings; flat or sloping not exceeding 45 degrees from horizontal; fixing to timber at 500mm general spacing with 16 Gauge galvanized roofing nails complete with galvanized steel and bituminous washers	953	M <sup>2</sup>	30,000/=	28,590,000/=
<b><u>Accessories in Gauge 28 Resin Colour coated Aluminium sheet to match roofing, fixing with drive screws to sheeting:</u></b>					
B	ridge capping; 550mm girth; three times bent; nailed to battens, twice fixed at 450mm centres	81	M	20,000/=	1,620,000/=
C	hip capping; 550mm girth; three times bent; nailed to battens, twice fixed at 450mm centres	56	M	20,000/=	1,120,000/=
D	valley gutter; 550mm girth; three times bent; nailed to battens, twice fixed at 450mm centres	43	M	20,000/=	860,000/=
<b><u>Roof structure</u></b>					
<b><u>Sawn softwood pressure impregnated with preservative</u></b>					
E	50 x 150mm Rafter	1,607	M	3,000/=	4,821,000/=
F	50 x 150mm Ceiling joist, king posts, & struts	2,215	M	3,000/=	6,645,000/=
G	50 x 75mm Valley rafter	65	M	2,000/=	130,000/=
H	50 x 100mm Wall plates	625	M	2,800/=	1,750,000/=
I	50 x 75mm Purlins	1,096	M	2,000/=	2,192,000/=
J	50 x 100mm Members of roof truss	142	M	2,800/=	397,600/=
Page No. 1/5/1				Tshs.	48,125,000/=

EMD - 10



ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
A	<u>Carpenter's metal work</u> R4 wire	36	Pcs	3500/=	126,000/=
	<u>Roof Water Slab water-proofing &amp; flat roof areas</u>  <u>Tropical High performance Approved by the Project Manager roofing felt; First layer Tropical V; Second layer Tropical TNT; finished with aluminium paint; all laid by an approved specialist in accordance with manufacturers printed instructions (To be done by a Specialist)</u>  two layer covering; over 300mm girth; to falls or cross falls or sloping not exceeding 45 degrees from horizontal	57	SM	45,000/=	2,565,000/=
	<u>RAINWATER INSTALLATION, PIPE WORK, FLASHING</u> <u>UPVC pipes and fittings; heavy grade; painted on</u> <u>125mm diameter half round PVC Rainwater gutter; ring seal joints in the running length; plastic holder bats; fixing to backgrounds requiring plugging</u>	28	No	25,000/=	700,000/=
D	Ditto; 75mm down pipe	8	No	23,000/=	184,000/=
I	Gutter support bracket	36	No	3,000/=	108,000/=
F	Extra; clamp 3"	168	No	3,000/=	504,000/=
G	Connector outlet	6	No	2,500/=	15,000/=
H	Elbow	6	No	8,000/=	48,000/=
I	Angle <u>Impregnated Treated softwood timber or other equal and approved hardwood</u>	12	No	5,000/=	60,000/=
J	20 x 250mm Fascia board	203	LM	6,000/=	1,218,000/=
	Page No. 1/5/2			Tshs.	5,528,000/=
	COLLECTION Page No. 1/5/1			Tshs.	48,125,000
	Page No. 1/5/2			Tshs.	5,528,000/=
	<b>TOTAL ROOFING TO SUMMARY</b>			Tshs.	<b>59,653,000/=</b>

EMD - 11



ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
<b>ELEMENT NO.6- FINISHINGS</b>					
<u>15mm Thick plaster 1:4 to internal walls, roof slab, siles and soffities of beams, columns and the like</u>					
A	cement - 50 Kgs 42.5	280	Bags	18,000/=	5,040,000/=
B	sand for mortar	10	Trips	157,500/=	1,575,000/=
<u>15mm thick Rendering to walls (1:4)</u>					
C	cement - 50 Kgs 42.5	124	cm Bags	18,000/=	2,232,000/-
D	sand for mortar	4	Trip	157,500/=	630,000/-
<u>Wall Tiles</u>					
<u>12mm thick wall tiles bedding mortar 1:4:</u>					
E	cement - 50 Kgs 42.5	44	Bags	18,000/=	792,000/=
F	sand for mortar	2	Trip	157,500/=	315,000/=
<u>White glazed ceramic wall tiles with cushion edges to BS 1282 fixed to backing with adhesive and pointed with white grout</u>					
G	200 x 300 x 6mm Tiling to walls	220	M <sup>2</sup>	30,000/=	6,600,000/=
H	cement - 50 Kgs 42.5	15	bags	18,000/=	270,000/=
I	sand for mortar	0.4	Trips	157,500/=	63,000/=
<u>Tiles, slab or block finishings</u>					
<u>Coloured porcelain non slippery/non-glazed floor tiles or other equal and approved with cushion edges fixed to screed with adhesive and pointed with coloured grout</u>					
J	500 x 500 x 12mm Tiling to floors	1,097	M <sup>2</sup>	45,000/=	49,365,000/=
K	2.5mm skirting 150mm high with splayed edge	568	M	28,000/=	15,904,000/=
L	cement - 50 Kgs 42.5	230	bags	18,000/=	4,140,000/=
M	sand for mortar	7	Trips	157,500/=	1,102,500/=
				Tshs.	88,028,500/=

EMD - 12



ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
<u>Allow for EPOXY finishings as per project Manager's instructions</u>					
A	Epoxy Floor finish to operating rooms	24	M <sup>2</sup>	150,000/=	3,600,000/=
B	2.5mm skirting 150mm high with splayed corner	20	M	50,000/=	1,000,000/=
<u>Ceiling finish</u>					
C	9mm Gypsum ceiling (Thailand)	364	Pcs	25,000/=	9,100,000/=
D	Cornices (plain)	385	Pcs	5,000/=	1,925,000/=
E	50x50mm Treated softwood bandering	1,167	Pcs	4,000/=	4,668,000/=
F	Assorted nails	30	Kgs	3,500/=	105,000/=
G	Gypsum powder	60	Bags	26,000/=	1,560,000/=
H	Fibre tape	42	Roll	11,000/=	462,000/=
I	Gypsum screws	42	Boxes	9,000/=	378,000/=
J	Extra: access panels: Local Fundi designed dimensions, pre-drilled fixed with screws, plastic sockets and cups as per project manager's instructions	1	No	100,000/=	100,000/=
	Page No. 1/6.2			Tshs.	22,898,000/=
<b>COLLECTION</b>					
	Page No. 1/6.1			Tshs.	88,022,500/=
	Page No. 1/6.2			Tshs.	22,898,000/=
<b>TOTAL FINISHING TO SUMMARY</b>					<b>110,926,500/=</b>

EMD-13



ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
<b>ELEMENT NO.7- PAINTINGS AND DECORATIONS</b>					
<u>Prepare and apply one thinned coat and two full coats of wash 'n' ware paint to plastered walls, sloping soffities of stair cases, ceiling, gypsum ceiling</u>					
A	Wash 'n' ware paint	45	Bucket	<del>170,000/=</del>	7,650,000/=
<u>Prepare silicon based paint and apply one thinned coat of acrylic primer; one coat of STUCCO surface and one finishing coat of EPOXY finished paint onto:</u>					
B	Plastered walls, in the theatre room, treatment room and resuscitation rooms	393	SM	<del>8,000/=</del>	3,144,000/=
<u>External work</u>					
<u>Prepare and apply one primer coat and two finishing coats of Galaxy weather guard paint or other equal and approved</u>					
C	Weather guard paints	12	Bucket	<del>170,000/=</del>	2,040,000/=
D	White Cement	22	Bags	<del>27,000/=</del>	594,000/=
E	Gloss oil paints	12	tin	<del>40,000/=</del>	480,000/=
F	Undercoat	60	Bucket	<del>35,000/=</del>	2,100,000/=
<b>TOTAL DECORATION TO SUMMARY</b>					<b>16,008,000/=</b>

EMD - 14





ITE	DESCRIPTION	QTY	UNIT	RATE(TSHS)	AMOUNT
<b>ELEMENT NO.8- ELECTRICAL AND FIRE SYSTEM</b>					
<b>Power Distribution.</b>					
A	12 Ways TPN distribution Board (DBG) with 100A 300mA RCD in corner and 10A SP(9Nos),20ASP(19Nos) and 32A SP(8Nos) outgoing MCBs As specified in the drawings . ABB or approved equal	1	No.	180,000/=	180,000/=
B	4C x 25mm <sup>2</sup> Cu,PVC SWA PVC cable from Janesco supply and from change over switch to distribution boards DBG.	50	m	120,000/=	6,000,000/=
C	100A TPN Automatic change overswitch as ABB or approved equal	1	No	200,000/=	200,000/=
D	1C x 10mm <sup>2</sup> Cu,PVC Green Yellow earth cable	10	m	30,000/=	300,000/=
E	100mm diameter heavy gauge PVC Pipe	12	m	40,000/=	480,000/=
<b>Small Power Distribution</b>					
F	25mm diameter heavy gauge PVC conduits concealed underwalls and roof floors from distribution Boards to all power and telecommunications outlet points	384	pcs	2,000/=	768,000/=
G	Single core 2.5 sqmm PVC copper cables from distribution Boards to all power outlet points				
	i)Red Brown colour	10	Rolls	90,000/=	900,000/=
	ii)Blue colour	10	Rolls	90,000/=	900,000/=
	iii)Green Yellow	9	Rolls	90,000/=	810,000/=
H	2 x 13A switched socket complete with GI backbox	58	No	15,000/=	870,000/=
I	Telecommunications outlet box complete with face	41	No	18,000/=	738,000/=
J	TV outlet box complete with face plate	1	No	18,000/=	18,000/=
K	20A DP switch complete with backbox for A.C and H.D as ABB or approved equivalent	18	No	16,000/=	288,000/=
Page No. 1,8 1				Tshs. :	12,452,000

EMD - 15



ITE	DESCRIPTION	QTY	UNIT	RATE(TSHS)	AMOUNT
<b>Light Fittings</b>					
A	20mm diameter heavy gauge PVC conduits concealed underwalls and roof floors from distribution Boards to all lighting, fire Alarm, ceiling fan outlet points and	776	pcs	2,000/=	1,552,000/=
B	Single core 1.5 sqmm PVC copper cables from distribution Boards to all lighting and ceiling fan outlet points				
	i) Red Brown colour	23	Rolls	60,000/=	1,380,000/=
	ii) Blue colour	23	Rolls	60,000/=	1,380,000/=
	iii) Green Yellow	22	Rolls	60,000/=	1,320,000/=
C	Type B; LED T-8, IP65 Tube light 4ft 24W as smart sense or approved	62	No	40,000/=	2,480,000/=
D	Add Type D: Recessed/Surface modular 20W LED Diamond light with frosted glass as Smart sense or per interior design specification	15	No	30,000/=	450,000/=
E	Type E: Surface mounted outdoor for 20W LED Diamond ceiling light as smart sense or approved	12	No	30,000/=	360,000/=
F	Type C: Wall mounted outdoor luminaire With 20W LED DAY Light as smart sense or approved	12	No	35,000/=	420,000/=
G	One way 1 gang light switch as ABB or approved	21	No	9,000/=	189,000/=
H	One way two gang light switch as ABB or approved equal	11	No	10,000/=	110,000/=
I	Two way 1 gang light switch as ABB or approved	9	No	10,000/=	90,000/=
J	Two way 2 gang light switch as ABB or approved	2	No	12,000/=	24,000/=
K	One way 3 gang light switch as ABB or approved	5	No	15,000/=	75,000/=
Page No. 1/8/2				Tshs.	8,450,000/=



ITE	DESCRIPTION	QTY	UNIT	RATE(TSHS)	AMOUNT
A	Two way 3 gang light switch as ABB or approved	2	No	15,000/=	30,000/=
B	Intermediate switch as ABB or approved equal	1	No	15,000/=	15,000/=
C	Ceiling fan complete with regulator as Panasonic or approved equal	24	No	250,000/=	6,000,000/=
D	Single sided exit light, with 3HRS duration emergence bulkhead for 8W T16(T5), As Thorn voyager excel	3	No	40,000/=	120,000/=
<b>FIRE DETECTION &amp; ALARM SYSTEMS</b>					
E	Addressable fire control panel, 2 loop, 2 Zones as GST or approved equal	1	No	7,000,000/=	7,000,000/=
F	Addressable smoke detector complete with base, as GST or approved equal	29	No	90,000/=	2,610,000/=
G	Addressable Heat detector complete with base, as GST or approved equal.	1	No	120,000/=	120,000/=
H	Breakglass/manual call points addressable, complete with back box for surface mounting as GST or approved equal	3	No	140,000/=	420,000/=
I	Fire bells 6" as addressable as GST or approved equal	3	No	450,000/=	1,350,000/=
J	Fire resistant cable 1.5sqmm, twin with earth wire	3	Rolls	650,000	1,950,000/=
<b>PORTABLE FIRE EXTINGUISHER</b>					
K	Fire extinguisher bottles Dry powder (ABC), 9kg mounted on wall	No	3	400,000/=	1,200,000/=
L	Fire extinguisher bottles Carbon dioxide (Co <sub>2</sub> ), 5kg mounted on wall	No	3	350,000/=	1,050,000/=
	Page No. 1/8/3			Tshs.	21,865,000/=
<b>COLLECTION</b>					
	Page No. 1/ 8/1			Tshs.	12,450,000/=
	Page No. 1/8/2			Tshs.	8,450,000/=
	Page No. 1 8/3			Tshs.	21,865,000/=
<b>TOTAL ELETRICAL AND FIRE ALAM TO SUMMARY</b>				Tshs.	42,767,000/=

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ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT TSHS.
<b>ELEMENT NO.9- ICT INSTALLATION STRUCTURED CABLING</b>					
A	modules.spring shutter and cabling field for Cat 6e cabling	No	31	45,000/=	1,395,000/=
B	RJ 45 wall face plate complete with modules.spring shutter and cabling field for Cat 6e cabling	No	10	45,000/=	450,000/=
C	4-pair unshielded twisted pair cable(UTP),Cat6e	Rolls	5	4,000/=	20,000/=
D	24 ports RJ45 voice patch panel	No	2	600,000/=	1,200,000/=
E	Wireless units(Wi-Fi Router)	No	2		
F	24 ports RJ45 Cisco Switch,cat 6	No	2	600,000/=	1,200,000/=
G	1m RJ45 patch code	No	60	15,000/=	900,000/=
H	3m RJ45 patch code	No	60	45,000/=	2,700,000/=
I	Patch guide (cable organizer)	No	4	4,500/=	18,000/=
J	2U Voice Cabinet with 2 heat extract fans and 6way power distribution unit(PDU)	No	1	800,000/=	800,000/=
K	4U Voice Cabinet with 2 heat extract fans and 6way power distribution unit(PDU)	No	1	1,000,000/=	1,000,000/=
L	200 pair cable connecting telephone from TTCT, DP PABX AND ACCESSORIES	Rolls	2	450,000/=	900,000/=
M	extensions complete with standard features and including all accessories for complete function of the system	No	1		
N	Digital telephone handset	No	2	850,000/=	1,700,000/=
O	Analogue telephone handset	No	20	600,000/=	12,000,000/=
P	Voltage stabilizer tronic 5kva	No	1		
Q	5KVA SP,UPS and Back up Batteries	Lot	1	3,000,000	3,000,000/=
<b>TOTAL ICT TO SUMMARY</b>				TSHS. 17,555,000/=	

EMD -18



EM	DESCRIPTIONS	UNIT	QTY	RATE (T.SHS)	TOTAL (T.SHS)
	<b>ELEMENT NO.10- MEDICAL GAS INSTALLATION</b>				
	<b>EQUIPMENT</b>				
	Medical gas Equipment complete with all ancillary as per specifications and drawings				
A	Duplex Oxygen Generator- 450 lpm complete with all accessories as per specification		1	15,000,000/=	15,000,000/=
B	Oxygen- 2x10 Oxygen Reserve Manifold System		1	4,500,000/=	4,500,000/=
C	Nitrogen- 2x3 Manual Manifold System		1	3,500,000/=	3,500,000/=
D	Medical Air- 2x10 Reserve Manifold System		1	5,000,000/=	5,000,000/=
E	Medical Vacuum Plant- 1020 Lpm		1	5,000,000/=	5,000,000/=
	<b>Wall Mounted Terminal Units</b>				
F	a)Oxygen	No	7	450,000/=	3,150,000/=
G	b)Nitrous Oxide	No	4	450,000/=	1,800,000/=
H	c)Medical Air -	No	7	450,000/=	3,150,000/=
I	d)Vacuum	No	7	450,000/=	3,150,000/=
	<b>Locable Line Valves as per specification</b>				
J	Lockable Line Valves				
K	a)15MM	No	2	150,000/=	300,000/=
L	b)22MM	No	1	220,000/=	220,000/=
M	c)28MM	No	1	340,000/=	340,000/=
N	d)35MM	No	1	400,000/=	400,000/=
	<b>PIPING WORK</b>				
	Copper piping of different sizes for distribution and supply of medical gas to various areas in the hospital. The Copper pipes shall be solid drawn, seamless, deoxidised, nonarsenical, half hard, tempered and degreased material conforming to BS-6017:1981 and manufactured as per BS 2871:1971. The Copper pipe shall be supplied with Lloyd's test certificate and installed as per HTM -02-01 specifications with utmost cleanliness. Color codification as per BS 1710. The piping shall be complete with all fittings i.e. elbow, tee, reducer, socket, union, flange and insulation where necessary etc conforming to HTM 02-01				
	<b>Copper pipes</b>				
O	D15	M	170	45,000/=	7,650,000/=
P	D22	M	100	60,000/=	6,000,000/=
	Page No. 1/10/1			Tshs.	72,149,000/=

EMD - 19



EM	DESCRIPTIONS	UNIT	QTY	RATE (T.SHS)	TOTAL (T.SHS)
A	D28	M	60	72,000/-	4,320,000/-
B	D35	M	95	79,000/-	7,505,000/-
C	LPG gas cylinder 50kg including all necessary accessories	No	1	750,000/-	750,000/-
D	LPG pipes 25mm diameter	M	20	30,000/-	600,000/-
E	Burner	No	1	450,000/-	450,000/-
F	Copper tube 8/10	No	1	240,000/-	240,000/-
G	Turn ISO Valve	No	1	320,000/-	320,000/-
H	Panic shutoff valve	No	1	250,000/-	250,000/-
I	Regulator	No	1	350,000/-	350,000/-
Page No. 1/10/2				Tshs.	14,785,000/-
<u>COLLECTION</u>					
Page No. 1/10/1				Tshs.	72,160,000/-
Page No. 1/10/2				Tshs.	14,785,000/-
TOTAL MEDICAL GAS INSTALLATION TO SUMMARY				Tshs.	86,945,000/-





EMD	DESCRIPTIONS	UNIT	QTY	RATE (T.SHS.)	TOTAL (T.SHS.)
<b>ELEMENT NO.11- AC AND VENTILLATION,</b>					
A	<b>Single Split Air Conditioners with Wall Mounted Indoor/ Fan Coil Unit:</b> Single split air conditioner, each set shall be completed with outdoor air-cooled condensing unit, indoor Wall Mounted type fan coil unit and wired controller, wireless remote controller, AVS Voltage Surge protector including all supports and associated fittings	No	1	9,000,000/=	9,000,000/=
B	<b>Single Split Air Conditioners with ceiling cassette Indoor/ Fan Coil Unit:</b> Single split air conditioner, each set shall be completed with outdoor air-cooled condensing unit, indoor Cassette type fan coil unit and wired controller, wireless remote controller, AVS Voltage Surge protector including all supports and associated fittings	No	1	750,000/=	
	a) Cooling Capacity 2.6kW (12000Btu/h)	No	4	3,200,000/=	12,800,000/=
	b) Cooling Capacity 4.5kW (15000Btu/h)	No	10	2,804,000/=	28,040,000/=
	c) Cooling Capacity 3.6kW (12000Btu/h)	No			
C	<b>Refrigerant Pipes and Fittings to BS 2871</b> Refrigerant copper pipes complete with all associated fittings like elbows etc. and all supports	Roll	17	195,000/=	3,315,000/=
	a) 6.4mm diameter	Roll	17	220,000/=	3,740,000/=
	b) 12.7mm diameter				
D	<b>Armaflex insulation - 25mm thick</b>	m	250	10,000/=	2,500,000/=
	a) 6.4mm dia	m	250	18,000/=	4,500,000/=
	b) 12.7mm diameter				
E	<b>Condensate Drainage Pipes(PVC)</b> Condensate drainage PVC pipes complete with associated fittings i.e. tees, elbows, reducers etc. so as to make the system work perfectly	m	15	2,500/=	37,500/=
	a) 20mm diameter PVC pipe	m	106	25,000/=	2,650,000/=
	b) 25mm diameter PVC pipe	m	55	32,000/=	1,760,000/=
	c) 32mm diameter PVC pipe				
Page No.1/11/1				Tshs.	59,951,700/=

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ITEM	DESCRIPTIONS	UNIT	QTY	ATE (T.SHS.)	TOTAL (T.SHS.)
A	<b>Trunking</b> 120 x 69mm galvanized steel trunking for accommodating external insulated pipe work for outdoor A/C system including corners, joints, wall plates, pipe holders and all necessary fittings.	m	145	15,000/=	2,175,000/=
B	<b>Tray</b> 300mm wide, 25mm height and 2.5mm thick, galvanized steel, medium duty, perforated cable tray with necessary supporting frame for supporting refrigerant pipes (horizontal runs) between indoor and outdoor units, complete with all accessories including ties, bolts, nuts and supporting frames on ...	m	256	45,000/=	11,520,000/=
C	Mounting brackets, supports and other fittings for outdoor units	Nos	16	150,000/=	2,400,000/=
D	<b>Wiring</b> a) Control and power cables between units and DP switch located near the door position b) Control and power cables between indoor units and outdoor units located	m	112	18,000/=	2,016,000/=
		m	256	18,000/=	4,608,000/=
E	<b>MECHANICAL VENTILATION</b> Wall Extract fan with capacity of 300m <sup>3</sup> /hr @ 50Pa, complete with timer control and all accessories	No	1	400,000/=	400,000/=
	Page No. 1/11/2			Tshs.	17,160,000/=
	<b>COLLECTION</b>				
	Page No. 1/11/1			Tshs.	57,951,700/=
	Page No. 1/11/2			Tshs.	17,161,000/=
	<b>TOTAL AC AND VENTILLATION TO SUMMARY</b>			Tshs.	77,112,700/=



ITEM	DESCRIPTIONS	UNIT	QTY	RATE (T.SHS.)	TOTAL (T.SHS.)
<b>ELEMENT NO.12- PLUMBING AND INSTALLATION.</b>					
<b>EXTERNAL/ CORE SERVICES</b>					
<b>Water supply connection</b>					
A	Connection from public water supply main pipe to storage tank, including supply pipe, water meter, valves and other associated fittings.	Item	1	5,000,000/=	5,000,000/=
B	Connect pipe from existing underground water storage tank to roof tank	Item	1	1,500,000/=	1,500,000/=
C	Construction of concrete water Storage underground tanks 15,000Litres	No	1	2,500,000/=	2,500,000/=
D	Roof water storage tank Plastic type (SIMTANK) with capacity of 5000L.	No	1	950,000/=	950,000/=
F	Valves, flanges, pressure ball valve and all necessary fittings for above water tank	Item	1	350,000/=	350,000/=
<b>Water Pump</b>					
F	Duplicate two water booster pumps each with capacity 3.6m <sup>3</sup> /hr at 10m head, complete with pressure tank, control panel, dry running protection and all necessary accessories, manufactured by Grundfos or similar equal approved. There should be two pumps, one operating and the other standby	Set	1	1,500,000/=	1,500,000/=
<b>Water supply Pipe</b>					
G	40mm diameter galvanised steel pipe, complete with fittings and supporting brackets for transferring water from underground to roof water tank and around the house	m	15	15,000/=	225,000/=
H	50mm diameter galvanised steel pipe connected to water supply network to underground tank	m	15	28,000/=	420,000/=
I	40mm diameter gate valves to support the above installations	No.	1	65,000/=	65,000/=
J	40mm diameter non-return valves to support the above installations	No.	1	75,000/=	75,000/=
Page No. 1/12/1				Tshs.	12,235,000/=

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ITEM	DESCRIPTIONS	UNIT	QTY	UNIT (T.SHS.)	TOTAL (T.SHS.)
A	Construction of foul/waste water manholes of internal dimension 600x600mm with invert level not exceeding 1000mm comprising 200mm plain concrete grade "C" bed 230mm block wall plastered internally as per specification and drawings including heavy duty cast iron cover.	No.	13	200,000/=	2,600,000/=
B	Construction of 200X200mm standard gully trap as per specification and drawings including heavy duty cast iron cover.	No.	11	120,000/=	1,320,000/=
C	Excavate trench not exceeding 1000 mm deep and average 500mm wide for laying sewerage pipe not exceeding 100mm diameter including backfilling	m	122	5,000/=	610,000/=
D	Construction of foul water septic tank of internal dimension 3465L x 1165W x 1800D mm, of capacity 6000Litres complete with other associated accessories	No	1	5,500,000/=	5,500,000/=
E	Construction of foul water soak away pit with internal dimension 3m Diameter and 2.0m Depth complete with all associated accessories	No	1	3,800,000/=	3,800,000/=
F	Galvanized steel wire ballon set on top of vent pipe and covered with mosquito gauze, 100mm diameter	No	2	40,000/=	80,000/=
<b>Soil/waste water and vent pipe work</b>					
Ground/exposed of class "B" to BS 8301 - 1985 uPVC pipe complete with associated fitting including chasing walls, pipe supports and necessary decoration for exposed pipe work					
G	<b>Pipes:</b>				
H	Pipes; fixing with holders to backgrounds requiring plugging				380,000/=
	a) 100mm diameter, uPVC pipe	m	28	12,000/=	336,000/=
	b) 50mm diameter, uPVC pipe	m	33	7,500/=	247,500/=
	c) 40mm diameter, uPVC pipe	m	35	6,000/=	210,000/=
I	<b>Elbows, 90°</b>				
	a) 100mm diameter, uPVC	No	2	8,000/=	16,000/=
	b) 50mm diameter, uPVC	No	3	5,000/=	15,000/=
	c) 40mm diameter, uPVC	NO	2	3,500/=	7,000/=
J	<b>Tees - Y</b>				
	a) 100mm diameter, uPVC	No	2	10,000/=	20,000/=
	b) 40mm diameter, uPVC	No	6	8,000/=	48,000/=
<b>Page No. 1/12/3</b>				<b>Tshs.</b>	<b>14,809,500/=</b>

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EM S	DESCRIPTIONS	UNIT	QTY	UNIT (T.SHS.)	TOTAL (T.SHS.)
A	c) 50mm diameter, uPVC 45° Elbow	No	2	9,000/=	18,000/=
	a) 100mm diameter, uPVC	No	4	8,000/=	32,000/=
	b) 50mm diameter, uPVC	No	3	5,000/=	15,000/=
	c) 40mm diameter, uPVC	NO	15	3,500/=	52,500/=
B	External Core services				
C	Ground Floor				
	Page No. 1/12/4			Tshs.	117,500/=
	<b>COLLECTION</b>				
	Page No. 1/12/1			Tshs.	12,295,000/=
	Page No. 1/12/2			Tshs.	4,683,000/=
	Page No. 1/12/3			Tshs.	14,809,500/=
	Page No. 1/12/4			Tshs.	117,500/=
	<b>TOTAL PLUMBING AND DRAINAGE TO SUMMARY</b>			Tshs.	31,845,900/=



ITEM	DESCRIPTION	QTY	UNIT	PRICE	AMOUNT
<b>GENERAL SUMMARY</b>					
A	ELEMENT NO.1- SUBSTRUCTURE.		TSHS		169,529,000/=
B	ELEMENT NO.2- SUPERSTRUCTURE.		TSHS		95,928,000/=
C	ELEMENT NO.3- <del>SUPERSTRUCTURE.</del> <i>DOORS</i>		TSHS		64,244,000/=
D	ELEMENT NO.4- WINDOWS.		TSHS		22,784,500/=
E	ELEMENT NO.5- ROOFING.		TSHS		53,659,000/=
F	ELEMENT NO.6- FINISHING.		TSHS		116,926,500/=
G	ELEMENT NO. 7 PAINTING AND DECORATION.		TSHS		16,008,000/=
H	ELEMENT NO.8- ELECTRICAL AND FIRE SYSTEM		TSHS		42,767,000/=
I	ELEMENT NO.9- ICT INSTALLATION		TSHS		17,555,000/=
J	ELEMENT NO.10- MEDICAL GAS INSTALLATION		TSHS		86,945,000/=
K	ELEMENT NO.11- AC AND VENTILATION.		TSHS		77,112,700/=
L	ELEMENT NO.12- PLUMBING AND INSTALLATION.		TSHS		31,845,900/=
	<b>SUB TOTAL</b>		TSHS		785,299,450
	Add: 15-25% Labour charges		TSHS		117,794,917.50
	Add: 1% Transport charges		TSHS		7,852,994.50
	Add: Preliminary works (Includes Water for the waorks, removing rubbish and cleaning. Tools, plants and Scaffolding. Site accomodation, Watching and Lighting, Testing, etc)		TSHS		130,642,104.30
	Add: Direct Labour cost (Schedule No 2)		TSHS		31,427,683.99
	<b>GRAND TOTAL</b>		TSHS		1,079,222,150

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