INTERNATIONAL RESCUE COMMITTEE, (IRC) INC.

Uganda Program

CONSTRUCTION OF HEALTH UNIT AT YANGANI HEALTH CENTRE III IN BIDIBIDI REFUGEE SETTLEMENT CAMP IN ARIWA SUB-COUNTY, YUMBE DISTRICT

RFP REFERENCE NUMBER: IRC/SU/YU/002

Planned Timetable	
Issue ITT	25/9/2017
Questions from Supplier due date	4/10/2017
Deadline for reply Supplier's questions	6/10/2017
Deadline to receive Bids	10/10/2017 before 4pm (East African time)
Evaluation of ITT	11/10/2017
Supplier visit	13/10/2017 to 16/10/2017
Award of Contracts	16/10/2017
Contract start	17/10/2017

SEPTEMBER 2017

INTRODUCTION

1.0 Background

The International Rescue Committee (IRC) intends to use part of its fund **Construction of Health Unit comprising of OPD, Maternity, and General ward, Nutrition Unit, Isolation unit and staff house at Yangani Health Centre III in Ariwa Sub-County, Yumbe District.**

2.0 Scope of Work

Swinga Health Centre III is located in **Ariwa Sub-County, Yumbe District.** The works include **Construction of Health Unit** as per drawings attached. The structures shall be placed at an agreed position on a piece of land allocated by Office of Prime Minister (OPM).

(SEE TECHNICAL SPECIFICATIONS FOR FURTHER DETAILS)

THE EMPLOYER RESERVES THE RIGHT TO ALTER, REDUCE OR INCREASE THE SCOPE OF WORKS AS WELL AS CHANGING THE SITES, PROVIDED THAT THEY SHALL BE IN YUMBE DISTRICT.

The Employer shall be **THE INTERNATIONAL RESCUE COMMITTEE**, and the Employer or a Supervisor appointed by the Employer shall supervise the Contract.

CONDITIONS OF TENDER AND INSTRUCTIONS TO TENDERERS

Note: The Tenderers must comply with the following conditions and instructions. Failure to do so may result in rejection of the Tender.

A. GENERAL

1.0 DEFINITIONS

1.1 **Tenderer** means a firm or company submitting a sum or sums in the Bills of Quantities in accordance with the Conditions of Tender and Instructions to Tenderers, Conditions of Contract, Contract Data, Technical Specifications and Drawings, for the work contemplated, acting directly or through a legally appointed representative

Approved Tenderer means the Tenderer who has been approved by the Employer by means of pre-qualification.

Employer means the party who employs the Contractor to carry out the works and where **customer** is used shall mean the same.

Supervisor means the person appointed by the Employer, and responsible for supervising and administering the Contract on behalf of the Employer.

Contract means the binding agreement between the Employer and the Contractor to execute and complete the Works.

Works means what the Contract requires the Contractor to construct.

Contractor means a corporate body whose tender to carry out the Works has been accepted by the Employer.

Where one gender is used it also implies the other.

2.0 SCOPE OF TENDER

2.1 The International Rescue Committee (referred to as **"the Employer"** in these documents) hereby invites Tenders for **Construction of Health Unit at Yangani Health centre** and associated works under Contract No**. ……..….** as defined in these documents, and referred to as the **"the Works".**

2.2 The successful Tenderer (s) will be expected to complete the Works within the period stated in the Form of Tender.

3.0 SCOPE OF WORKS

The Sites of the Works are located in **Yumbe District, Ariwa Sub-county** and as shown in the drawings.

The Works to be executed under the Contract are as defined in the specifications attached here to.

4.0 ELIGIBLE TENDERERS

4.1 Only firms that have **valid legal documents** as stipulated in the bid data sheet are eligible to bid.

5.0 ONE TENDER PER TENDERER

5.1 Each Tenderer shall submit only one Tender. A Tenderer who submits or participates in more than one Tender (other than alternatives that have been permitted or requested) will be disqualified.

6.0 COST OF TENDERING

6.1 The Tenderer shall bear all costs associated with the preparation and submission of a Tender and the Employer will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process.

7.0 SITE INSPECTION

7.1 The Tenderer is **REQUIRED** to visit and examine the Sites of Works and their surroundings and obtain for himself, at his own expense, all information that may be necessary for preparing the bids and entering into a Contract. The Tenderer shall be fully responsible for the reliability and accuracy of all information so obtained.

B. TENDER DOCUMENTS

8.0 CONTENTS OF TENDER DOCUMENTS

8.1 The Tender Documents issued for the purpose of Tendering include the following, together with any amendments:-

- Conditions of Tender and Instructions to Tenderers
- Form of Tender
- Form of Contract
- Conditions of Contract.
- Technical Specifications
- Drawings
- Bills of Quantities

8.2 The Tenderer is required to examine carefully all instructions, conditions, forms, terms, specifications and drawings in the Tender Documents. Failure to comply with the

requirements for Tender submission will be at the Tenderers own risk. Tenders that are not substantially responsive to the requirements of the Tender Documents will be rejected.

8.3 All recipients of the documents for the proposed Contract for the purpose of submitting a Tender (whether they submit a Tender or not) shall treat the details of the documents as "Private and Confidential".

C. PREPARATION OF TENDERS

9.0 LANGUAGE OF TENDER

9.1 The Tender prepared by the Tenderer and all correspondence and documents relating to the Tender exchanged by the Tenderer and the Employer shall be written in the English language.

10.0 DOCUMENTS COMPRISING THE TENDER

10.1 The Tender to be prepared by the Tenderer shall comprise the following documents, duly filled, signed and **ARRANGED IN THE ORDER LISTED BELOW (Failure to arrange them in the order stipulated may lead to disqualification or loss of marks during evaluation)**

(a) Intent to Bid (signed and Stamped)

(b) The Form of Tender

(c) Contract Data

(d) Certified or colour copy of trading license

(e) Certified or colour copy of income tax clearance

(f) Copy of VAT registration certificate

(g) Registered Powers of Attorney (if addressed to IRC should be original and if general it should be certified by registrar of companies or be a colour copy)

(h) Schedule I - Tenderer’s Programme of Works

(i) Schedule II - Tenderer’s Key Personnel

(j) Schedule III – Tenderer’s machinery

(k) Schedule IV - Tenderer’s Basic Prices and Rates

(l) Certificate of Site Inspection – duly endorsed by local area representative (sub-county chief, LC III chairperson etc)

(m) The Priced Bills of Quantities (STAMPED ON EACH PAGE)

(n) Tenderers qualification information; company profile, financial ability, experience etc

10.2 The Forms, Bills of Quantities and Schedules provided in these Tender Documents shall be used without exception (subject to extensions of the Schedules in the same format).

11.0 TENDER PRICES

11.1 All the insertions made by the Tenderer shall be made in **INDELIBLE INK** and the Tenderer shall clearly form the figures and shall not insert any extra item or otherwise alter the Bills of Quantities. The relevant space in the Tender Form and Bills of Quantities shall be completed accordingly without interlineations or erasures except those necessary to **correct errors made by the Tenderer, in which case the person or persons signing the Tender shall initial the erasures and interlineations.**

11.2 The Tenderers shall fill in rates and prices for all items of the Works described in the Bills of Quantities. All entries shall be in actual amounts and not ratios or percentages. Items for which no rate or price is entered by the Tenderer will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bills of Quantities.

11.3 The prices and rates in the Bills of Quantities are to be the full, inclusive value for all labour, materials, equipment, construction plant, temporary works and all other matters, things, obligations, liabilities and risks which are necessary for the successful execution and completion of the Works as set forth or implied in the Tender Documents.

11.4 Each price or unit rate inserted in the Bills of Quantities should be a realistic estimate for completing the activity or activities described under that particular item and the Tenderer is advised against inserting a price or rate against any item contrary to this instruction. Rates should not be of such nature as to distort the comparison of Tenders or to result in interim payments that are disproportionate to the value of work done.

11.5 Every rate entered in the Bills of Quantities, whether or not such rate be associated with a quantity, shall be carried to the Tender Summary and incorporated in the sum named in the Tender, shall form part of the Tender and in the event of acceptance of the Tender, shall form part of the Contract.

11.6 All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, prevailing 14 days prior to the latest date for submission of Tenders, shall be included in the rates, prices and Total Tender Price submitted by the Tenderer, and the evaluation and comparison of Tenders by the Employer shall be made accordingly.

11.7 The rates and prices quoted in the priced Bills of Quantities are not subject to adjustment for the duration of the Contract.

12.0 CURRENCIES OF TENDER AND PAYMENT

12.1 The unit rates and the prices shall be quoted by the Tenderers entirely in **Uganda Shillings.**

13 TENDER VALIDITY

13.1 Tenders shall remain valid and open for acceptance for a period of **90 days** after the latest date for submission of Tenders, or as otherwise prescribed in the Letter of Invitation to Tender.

13.2 In exceptional circumstances, prior to expiry of the original Tender validity period, the Employer may request the Tenderer(s) for a specified extension in the period of validity. The request and the responses thereto shall be made in writing or by cable, e-mail, telex or telefax. A Tenderer may refuse the request without forfeiting his Tender Security.

A Tenderer agreeing to the request will not be required nor permitted to modify his Tender, but will be required to extend the validity of his Tender Security correspondingly. The provisions regarding discharge and forfeiture of the Tender Security shall continue to apply during the extended period of Tender validity.

13.3 The successful Tenderer shall remain bound by his Tender for a further period of **30 days** following the receipt of the communication notifying him of his selection.

14.0 TENDERER'S PROGRAMME

14.1 The Tenderer shall supply a schedule (Schedule I) with charts showing details of his proposed Work program for undertaking the Works. The program shall depict the time in months/weeks anticipated for undertaking all significant operations, and shall be deemed to start from the Start Date as defined in the Contract Data. Details should include but not be necessarily limited to:

(a) Periods of occupation of individual construction localities.

(b) The relationship and timing of each operation to other operations within the Contract.

(c) Allocation and use of labour.

14.2 For the purpose of preparing this program the Tenderer shall assume that an award of Contract will be made within **90 days** after the date for submission of Tenders.

14.3 The program must be consistent with the details shown in the other Schedules and shall make allowance for the rainy seasons or unfavorable weather that may hinder access to or progress at the site.

14.4 The program shall form a part of the Contract if the Tender is accepted. Any change in the program shall be subject to the approval of the Employer or his appointed Supervisor.

15.0 PRE-TENDER MEETING

15.1 The purpose of this is to clarify items in the Tender Documents, and any matters that may be raised as a result of the Site Inspection visit and the Tendering process.

15.2 The Tenderer is requested to submit any questions to be raised at this meeting in writing or by cable, e-mail UA-WestNile.Procurement@rescue.org copy to reach the Employer not later than 3 working days before submission deadline.

Any modification of the Tender Documents listed in Clause 10 which may become necessary as a result of the pre-Tender meeting, shall be made by the Employer exclusively through the issuance of a Tender Addendum pursuant to Clause 12, and not by means of the minutes of the pre-Tendering meeting.

16.0 FORMAT AND SIGNING OF TENDERS

16.1 The Tenderer shall prepare the documents comprising the Tender as described in the Instructions to Tenderers, clearly marked **"Original Tender"** as appropriate. Drawings need not be included with the **"Copy of Tender"**.

16.2 The complete Tender shall be without alterations, interlineations or erasures, except those in accordance with instructions issued by the Employer, or as necessary to correct errors made by the Tenderer, in which case such corrections shall be initialed immediately adjacent to the correction by the person or persons signing the Tender.

D. SUBMISSION OF TENDERS

17.0 SEALING AND MARKING OF TENDERS

The Tenderer shall seal the original copy of the bid each in an inner envelope duly marking the envelopes as "ORIGINAL" as appropriate all enclosed in an outer envelope.

The outer envelope shall be addressed:

The Procurement Committee,
International Rescue Committee.

And shall bear the following identification: "**TENDER FOR CONSTRUCTION OF HEALTH UNIT AT YANGANI HEALTH CENTRE III IN ARIWA SUB-COUNTY, YUMBE DISTRICT**

RFP REGERENCE NO: IRC/SU/YU/002

18.0 DEADLINE FOR SUBMISSION OF TENDERS

18.1 Tenders must be received by the Employer at **IRC Kampala Office (Reception area)** on the date and time as specified in the IFB. Proof of posting will not be accepted as proof of delivery, and any Tender delivered after the above-stipulated time, from whatever because arising will not be considered.

18.2 The Employer may, at his discretion, extend the deadline for the submission of Tenders through the issue of an amendment in which case all rights and obligations of the Employer and the Tenderers subject to the previous deadline shall thereafter be subject to the new deadline as extended.

19.0 LATE TENDERS

19.1 Any Tender received by the Employer after the prescribed deadline for submission of Tender as defined in Clause 24 will be returned unopened to the Tenderer.

E. TENDER EVALUATION

20.0 EVALUATION AND COMPARISON OF TENDERS

The Employer will evaluate and compare only those Tenders determined to be substantially responsive to the requirements of the Tender Documents.

20.1 In evaluating Tenders, the Employer will determine for each Tender the Evaluated Tender Price by adjusting the Tender Price as follows:

(a) Making any correction for errors.

(b) Excluding fixed Provisional Sums and the provision, if any, for Contingencies in the Bills of Quantities.

F. AWARD OF CONTRACT

21.0 EVALUATION CRITERIA

21.1 The Employer will award the Contract to the Tenderer whose Tender has been determined to be substantially responsive as per section 7 above will be considered for the evaluation process with the below scoring criteria.

TECHNICAL EVALUATION CRITERIA	DESCRIPTION	WEIGHT (%)
Availability	Refers to availability for immediate delivery after being contracted to start the works.	5%
Staff Capacity	Refers to the technical experience of the responsible civil engineers and those individuals who are assigned to this project.	10%
Past experience	Refers to bidders' ability to demonstrate relevant experience and technical knowledge of the services required, experience working with IRC and other INGOs.	15%
Supplier visit	To ascertain the physical location, availability of a functional office and registration with Uganda Institute of Professional Engineers.	5%
Eligibility	Refers to Bidder's ability to demonstrate that they have valid business registration, tax certificate/registration as required by local law.	10%
Recommendation	Refers to successful reference checks.	10%
FINANCIAL EVALUATION CRITERIA	**DESCRIPTION**	**WEIGHT (%)**
Delivery Terms	Refers to Bidder providing most advantageous delivery schedule	10%
Payment Terms	Refers to bidder providing the most favorable terms of payment. The Purchaser payment terms are to pay within 30 calendar days of acceptance of services and receipt of invoice.	5%
Financial Proposal	Most competitive offer as per price list	30%
TOTAL% SCORE		**100%**

21.0 AWARD CRITERIA

21.1 The Employer will award the Contract to the Tenderer whose Tender has been determined to be substantially responsive to the Tender Documents, has offered the lowest evaluated Tender Price, provided further that the Tenderer still has the capability and resources to effectively carry out the Contract or, can assure work is of higher and guaranteed quality.

22. EMPLOYER'S RIGHT TO ACCEPT OR REJECT ANY OR ALL TENDERS

22.1 The Employer reserves the right to accept or reject any tender, and to annul the tendering process and reject all Tenders, at any time prior to award of Contract, without thereby incurring any liability to the affected Tenderer or Tenderers or any obligations to inform the affected Tenderer or Tenderers of the grounds for the Employer's action.

22.2 The contractor shall not make any payment whether in kind or cash to any, IRC employee that could be construed as influencing or rewarding the outcome of the award process. Any such payment will render this contract null and void and all payments due will be withheld. You will also be prohibited from ever contracting with IRC Uganda.

23. NOTIFICATION OF AWARD

23.1 Prior to the expiration of the period of Tender validity prescribed by the Employer under the Employer shall notify the successful Tenderer by issue of a Letter of Acceptance that his Tender has been accepted.

The Letter of Notification of Award shall name the sum which the Employer will pay to the Contractor in consideration of the execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called "the Contract Price") and conditions which have to be met before signing of the contract.

24.0 PREPARATION OF CONTRACT DOCUMENT

24.1 After communication of the result of the Tender, the Employer will prepare the Contract document for submission to the successful Tenderer for signature. This document shall include at least the following:

(a) A list of documents comprising the Contract, specifying the order of precedence of the documents;

(b) Any agreed additions to and derogations from these documents;

(c) The Contract Price;

(d) Any corrections made by the Employer.

25.0 SIGNING OF AGREEMENT

25.1 The successful Tenderer shall sign the Contract Form of Agreement and return it to the Employer within 4 days of receipt of the Letter of Notification of Award.

26.0 ADJUDICATOR

26.1 The Employer proposes the person named in the Contract Data to be appointed as Adjudicator under the Contract, at an hourly fee specified in the Contract Data, plus reimbursable expenses. If the Tenderer disagrees with this proposal, he should so state with reasons in his Tender and make a counter proposal. In the case of disagreement between the Employer and the Contractor of the choice of Adjudicator, the Adjudicator shall be appointed by negotiation between both parties prior to signature of the Contract.

INTERNATIONAL RESCUE COMMITTEE, (IRC) INC.

Uganda Program

CERTIFICATE OF PRE-TENDER SITE INSPECTION

This is to Certify that Mr/Mrs/Ms/Eng. …….. of ……
(*Firm*) on ……..….. (*Date*) carried out an inspection of the proposed site(s) of the Works to be undertaken for Contract No. ……..

This further certifies that the Tenderer is fully conversant with all Site conditions and information necessary for preparing the Tender and entering into a Contract for the completion of all Works according to the Specifications and the Programme for Work.

……..…….. ……..
(Name) (Signature)
……..…….
(Designation)

duly authorized to sign Tenders on behalf of ……
……...……

Date: ……

Note: This form should be competed and submitted with the Tender.

FORM OF TENDER

To: The Supply Chain Office,
International Rescue Committee,
Yumbe Field Office

Dear Sir/ Madam,

1. Having examined the drawings, Conditions of Contract, Specifications and Bills of Quantities and Tender Addenda Nos. …… to ……, and having confirmed inspection of the Site for the Works described in these documents by signature of the Certificate of Site Inspection, we, the undersigned, offer to construct, complete and remedy defects of the whole of the said Works in conformity with the said documents for the sum of …… …….. **(*Amount in words*)** ……**/= (*Amount in figures*)** or other such sum as may be ascertained in accordance with the said Conditions of Contract.

2. We undertake, if our Tender is accepted, to commence the Works within ……... Days/weeks from receipt of the Employers order to commence, and to complete and deliver the whole of the Works comprised in the Contract within a period of **.....**… weeks, as indicated in the Contract Data calculated from the Start Date.

3. If our Tender is accepted, we shall, within **4 days** of receipt of the Letter of Acceptance of our tender, sign the Contract Form of Agreement and return it to the Employer.

4. We agree to abide by this Tender for a period of **ninety (90) days** from the last date fixed for receiving the same, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

5. Unless and until a formal Agreement is prepared and executed, this Tender, together with written acceptance thereof, shall constitute a binding Contract between us.

6. We understand that you are not bound to accept the lowest or any tender you may receive.

7. We are fully experienced and competent in the type of work described in these Tender Documents and we have adequate technical resources to carry out the Works by the Intended Completion Date indicated in the Contract Data.

8. We are in position to fulfill all the Contract requirements in the event of our being awarded the Contract for which we have tendered.

9. We accept the appointment of ……..… as the Adjudicator.

   Or

We propose the appointment of ……..…… as the Adjudicator.
(*Fill only one*)

Dated this..... Day of ..... 20……..

Yours faithfully,

.....……..……..... .....
(Name) (Signature)

In the capacity of .....……., duly authorized to sign Tenders

On behalf of .....……..... **(in block letters)**

Witnessed by:

.....……..……..... .....
(Name) (Signature)

Address: .....….
.....

International Rescue Committee
P.O. Box 24672,
Plot 7, Lower East Naguru Road,
Kampala, Uganda
Tel. 041-286212, Fax 041-286219
E-mail: ircuganda@uganda.theIRC.org
Registered in Uganda S.5914/2353.
Certificate Number 2165

Date ……..

To: …….

……..

……..

Dear Sirs,**RE: NOTIFICATION OF AWARD**

This is to notify you that your Tender dated …….. for construction of **Health Unit at Yangani Bidibidi Refugee Settlement Romogi Sub-county, District under Contract No.** ……. for the Contract Price of ……...…… ……...…. ***(Amount in words)*** ……..…… ***(Amount in figures)*** as corrected and modified in accordance with the Instruction to Tenderers and the discussions held on …… ***(Date)*** is hereby accepted by our Agency. You are directed to furnish an acceptable letter with the following document from a reputable insurance company;

1. Performance insurance guarantee equal to **10%** of the contract value
2. The contractors all risk Insurance equivalent to **20%** of the contract value
3. Retention bond equivalent to **10%** of the contract value
4. If you wish to get **30%** advance payment, an advance payment guarantee equivalent to **30%** of the contract value

Yours faithfully,

Authorized

Signature: ……....

Name: ……..

Title of Signatory: ……

International Rescue Committee
P.O. Box 24672,
Plot 7, Lower East Naguru Road,
Kampala, Uganda
Tel. 041-286212, Fax 041-286219
E-mail: ircuganda@uganda.theIRC.org
Registered in Uganda S.5914/2353.
Certificate Number 2165

FORM OF CONTRACT/DRAFT CONTRACT

CONTRACT FOR CONSTRUCTION OF HEALTH CENTRE III AT BIDIBIDI REFUGEE SETTLEMENT CAMP IN ARIWA SUB-COUNTY, YUMBE DISTRICT.

Ref: ……

This contract defines the terms of sale of Services BETWEEN ……..……. of …… **(Contractor)** represented by …….. (Person named in powers of attorney).

AND

International Rescue Committee, Plot 7 Lower Naguru East Road PO Box 24672 Kampala, Uganda (**Customer**), represented by:……. (Country Director)

NOW THIS AGREEMENT WITNESSETH as follows:

The **Customer** hereby contracts the **Contractor** to perform: construction of a **Health Unit at Bidibidi Refugee Settlement Camp in ARIWA Sub-County, Yumbe District** (herein called the "**works"**) according to the BOQ and specifications agreed between the **Customer** and the **Contractor, and** attached to the present contract therefore being an integral part of it

AND

The **Contractor** hereby agrees to execute the works as per the terms of contract unless otherwise varied by special written instructions from the **Customer**

IT IS HEREBY AGREED as follows:

1.1 WORK

The work on the project shall be executed as per the provisions and specifications contained in the BOQ submitted and other schedules attached as integral parts to this agreement.

1.2 WORK SCHEDULE

The **Contractor** shall furnish the **Customer** with details of their work; this shall include weekly activities and programs at the site e.g. mobilisation, supply of materials, setting out, other construction works.

1.3 CUSTOMER SUPERVISION

The **Customer** representative is in charge of supervising the activities at the work site. Any change or modification of the bill of quantities and/or quotations, including variation of the price and quantities of work must be endorsed in advance by the **Customer** representative. The authorized representative is ……...……

1.4 VOLUME OF WORK

The **Customer** may increase or decrease the volume of work awarded to the **Contractor** without assigning any reason whatsoever. This shall result in a corresponding adjustment of the **Contractor's** compensation. The **Contractor** shall, however, be informed in writing of the decision so taken to increase or to reduce the volume of work.

After completion of the works, **the Customer** may assign additional work to be done by the **Contractor,** provided that the total amount of the construction cost is found less than the estimated contract value. The construction and additional work value shall not exceed the estimated value of the contract. The **Contractor** shall, however, be informed in writing of the decision so taken to increase the volume of work.

1.5 QUALITY OF WORK

All the works shall be executed in accordance with the specifications, by ensuring maintenance of good workmanship and proper choice of equipment, processes and materials to be used on the project.

Any sub-standard work originating from poor workmanship and/or the use of inferior materials shall be rejected and the **Contractor** shall demolish the same and remove the debris from the site at their own cost. The **Contractor** shall be required to make good any losses, which may have been caused in the course of such demolition and any costs incurred as a result.

1.6 COMPLETION PERIOD

The **Contractor** shall hand over the completed work to the **Customer** …….. **Days** after the final signature of the contract.

Any work not completed or accepted by the Customer before the completion period of …… Days will not be paid.

1.7 THE CUSTOMER MAY EXTEND THE COMPLETION DATE OF WORKS PROVIDED THAT:

The **Contractor** requests the **Customer** in writing, detailing all circumstances that would necessitate such extension to the satisfaction of the **Customer**

Occurrence of unforeseen circumstances such as war and/or civil disorder, which may contribute to delay in the execution of the work, shall be communicated by the **contractor** as soon as possible and, the **custome**r will respond immediately and together agree to vary the duration of contract.

1.8 DELAY AND NON-COMPLETION OF WORK

In the event that the **Contractor** fails to hand over the completed work to the **Customer** as per clause 1.6 and clause 1.7 is not applicable, a penalty of **1/100** of the contract sum, shall be charged to the Contractor for each day of delay in delivering the completed work to the **Customer**

2.0 TERMINATION OF THE CONTRACT

2.1 ARBITRATION

The Customer may terminate the contract if there is any misunderstanding on the mode of execution of the project. Where necessary, neutral arbitrator stated in the contract data and who is acceptable to both the **Customer** and the **Contractor** shall mediate between the two.

2.2 TERMINATION OF CONTRACT

The Contract shall be terminated upon the **Contractor** in the following event;

a) Failing to show any material progress, or if it is established that the **Contractor** has abandoned the work for a period of **seven (7)** consecutive days without informing the **Customer** in writing.

b) Failing to follow construction specifications, poor workmanship and lack of coordination including failure to discipline subordinate staff.

c) Any other reason justifiable to the **Customer**

On termination of the contract, measures shall be taken jointly by **Customer** and the Contractor to determine what is due to each party before payments can be effected for what is due to the **Contractor**. In the event of disagreement between the **Customer** and the Contractor, the Arbitrator's ruling shall be final.

3. PAYMENT FOR CONTRACTED WORK

Upon completion of the work the **Customer** shall pay the **Contractor** the final amount of the contract within 30 (thirty) days after submission and acceptance of the original invoices and the completion certificates.

The final amount to be paid will be calculated according to the executed work and the additional work cost required and accepted by the **Customer**, provided a variation order was issued by the **Customer** to the **contractor** to cover such additional work, including permission to use any contingency cost contained in the approved contract BOQ.

3.1 ADVANCE PAYMENTS

30% advance can be paid to the contractor upon submission of an advance payment guarantee from a reputable insurance company or financial institution**.**

"Interim payments" can be made upon measurement of works executed, the first certificate not being less than 30% contract works executed, to a maximum of 3 certificates including the final, but excluding retention certificate

3.2 PAYMENT OF FINAL CERTIFICATE

The final certificate shall be paid after **100%** practical completion of work and the final certificate of completion of work has been fully certified and approved by the supervisor appointed by the **Customer**. It should be noted that the cost of materials provided locally by the community will be deducted from the final pay by the Customer on an agreeable calculations based on the prevailing market price.

3.3 INFLATION

Payment to the **Contractor** shall be adjusted in accordance with Uganda Government official inflation figures within the authorized contract period, if such period exceeds **twelve (12)** months.

4.0 WAGES

The **Contractor** shall be responsible for his/her employees' dues, salaries and expenses.

5.0 INSPECTION OF WORK

The **Contractor** ensure that every stage of work is inspected and approved by the **Customer's** authorized agent, provided that the appointed date for the inspection is agreed between the **Contractor** and the **Customer's** technical agent and such an inspection shall not be acceptable as a reason for the delay of the contract or for the poor workmanship.

OTHERS

All the clauses on which this agreement is silent shall be construed to be the same as provided for under

the Laws of the Republic of Uganda to which reference shall be made when necessary in the course of executing this contract.

Total contract price is estimated at …….…. UShs: (…… ……. *In words*).

We hereby certify that we have carefully read all the contents of this contract agreement contained in …… pages and have fully understood its implications and we hereby endorse it.

SIGNED on behalf of the **Customer** On this _____ day of _____ 200___

_____ _____

Name **Signature**

In the presence of: On this _____ day of _____ 200___

_____ _____

Name **Signature**

_____

Position

SIGNED on behalf of the **Contractor** On this _____ day of _____ 200___

_____ _____

Name **Signature**

In the presence of: On this _____ day of _____ 200___

_____ _____

Name **Signature**

_____

Position

APPENDIX TO FORM OF AGREEMENT

With reference to clause 1 of the Form of Agreement, the documents listed below shall be deemed to form part of the Agreement.

(a) The Form of Agreement and Appendix thereof;
(b) The Letter of Notification of Award;
(c) The accepted Bid and schedules I, II, III and IV thereof
(d) Certificate of Site inspection
(e) The Contract Data;
(f) The General Conditions of Contract;
(g) The Technical Specifications;
(h) The Layout and Design Drawings
(i) The Priced Bills of Quantities;
(j) The Environmental guidelines
(k) The Advance Payment guarantee (where submitted) equivalent to 30% of the contract value
(l) Performance insurance guarantee equal to 10% of the contract value
(m) The contractors all risk Insurance equivalent to 20% of the contract value
(n) Retention bond equivalent to 10% of the contract value
(o) The Power of Attorney
(p) IRC authorization and justice approval

Signed for and on behalf of the said EMPLOYER

……..……..……..……..… (Name and Signature)

In the presence of:

……..……..……..……..… (Name and Signature)

Signed for and on behalf of the said CONTRACTOR

……..……..……..……..… (Name and Signature)

……..……..…… (Title)

In the presence of:

……..……..……..……..… (Name and Signature)

……..…… (Address)

International Rescue Committee
P.O. Box 24672,
Plot 7, Lower East Naguru Road,
Kampala, Uganda
Tel. 041-286212, Fax 041-286219
E-mail: ircuganda@uganda.theIRC.org
Registered in Uganda S.5914/2353.
Certificate Number 2165

……..……. **(*Date*)**

To: …….

…….

…….

Dear Sirs,

RE: COMMENCEMENT ORDER

This is to notify you that in accordance Contract No. …….. **FOR CONSTRUCTION OF Health Unit at Yangani Health Center III IN BIDIBIDI REFUGEE SETTLEMENT CAMP IN ARIWA SUB-COUNTY, YUMBE DISTRICT.** You are hereby instructed to proceed with implementation of the Works as per the provisions of the Contract by …….. ***(date)*.**

Yours faithfully,

Authorized Signature: ……...……..

Name: …….

Title of Signatory: ……...……

SCHEDULE I - FORM OF TENDERERS PROGRAMME OF WORKS

The Tenderer should submit his proposed Programme of Work as a separate document in accordance with Clause 14.1 and 19 of the Conditions of Tender and Instructions to Tenderers. The Programme of Work should be presented in narrative and diagrammatic form, and should clearly indicate how the Contractor intends to complete the whole of the Works within the Contract period as stated in the Contract Data. Different sections of the Contract (if appropriate) should be shown separate

1) CONTRACT DATA

1. The Employer is:-

   Name: THE COUNTRY DIRECTOR OR DESIGNATE,
   INTERNATIONAL RESCUE COMMITTEE

   Address: P. O. Box 24672, Kampala

2. The Supervisor appointed by the Employer is:-

   Name: …….. OR DESIGNATE
   Address: P. O. Box 24672, Kampala

3. The Contractor is:-

   Name:
   …….
   Address:
   ……

4. The Authorized Representative of the Contractor is ……..
   ……..

5. The language of the Contract is English.

6. The law that applies to the Contract is the law of the Republic of Uganda.

7. The currency of the Contract is Uganda Shillings.

8. The Start Date is ……..

9. The Intended Completion Date is ……

10. The Contractor shall submit a Program of Work for the Works within **3 days** of receipt of the Letter of Award.

11. The Site Possession Date is **3 days** after signing the contract

12. The Sites is located in **Bidibidi Refugee Settlement Camp, ARIWA Sub-County in Yumbe District**.

13. The Defects Liability Period is **3 months.**

14. The Defects Correction Period is **14 days.**

15. The maximum liability of the Contractor for property and personal loss and damage is **UShs. 10,000,000/=.**

16. The Adjudicator appointed by the Employer and the Contractor is:
    - Name: **The President, Uganda Institution of Professional Engineers**
    - Address: **P.O. Box 1308, Kampala, Uganda**

17. Arbitration will take place in accordance with the laws of the Republic of Uganda. The adjudication fee is **to be determined by the arbitrator.**

18. The period between Work Programme updates is **7 days.**

19. The amount to be withheld for late submission of Work Programme updates is **the amount of the current Interim Certificate**.

20. The Contract is not subject to price adjustment in accordance with Clause 41 of the Conditions of Contract.

21. The portion of Interim Payments retained, as Retention Money is 10 percent.

22. Liquidated Damages for the Works are 0.01 percent of the final Contract price per day.

23. The maximum amount of Liquidated Damages for the whole of the Works is 10 percent of the final Contract Price.

24. The date by which "as built" drawings and other documents are required is 3 weeks after completion.

25. The amount to be withheld for failing to produce "as built" drawings and other documents by the date required is 5 percent of Contract Price.

26. The percentage **payable by the Contractor** as fine for non-completion of work, if this occurs and the Employer terminates the Contract is **the value of the unfinished works plus 10% the contract sum as** the Employer's additional costs for completing work

27. Intervals between submission of Payment Certificates or request for payment by the Contractor shall be **dependent on scope of work completed and progress reports submitted**

GENERAL CONDITIONS OF CONTRACT

A. GENERAL

1.0 DEFINITIONS

1.1 In the Contract (as hereinafter defined) the following words and expressions shall have the meanings hereby assigned to them, except where the context otherwise requires. Terms that are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Boldface type is used to identify defined terms.

Acceptance means the formal acceptance by the Employer of the Tender as evidenced by receipt by the Contractor of the **Letter of Acceptance** issued by the Employer.

The **Adjudicator** is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance. The name of the Adjudicator is indicated in the Contract Data.

Bills of Quantities means the priced and completed Bills of Quantities forming part of the Tender.

Compensation Events are those defined hereunder.

The **Completion Date** is the date decided upon by the Supervisor by which date the Contractor has done all the work he is to do by the Intended Completion Date, and has corrected notified Defects which would have prevented the Employer using the Works. It is also the date when the Supervisor issues the Certificate of Completion and certifies that the Works are complete and can be used by the Employer.

The **Contract** is the Contract between the Employer and the Contractor to execute and complete the Works. It consists of the documents listed in the Appendix to the Form of Agreement.

The **Contract Data** contains the conditions of particular application and other information, which form part of the Contract.

The **Contractor** is a person or corporate body whose quotation/Tender to carry out the Works has been accepted by the Employer, and the legal successors of such a person, but not (except with the consent of the Employer) any assignee of such a person.

The **Contractor's Representative** is the person appointed by to the Contractor to be present on the site to ensure execution of the work, to receive all communications from the Supervisor, and to carry out such duties and exercise such authority as may be required on behalf of the Contractor under the Conditions of Contract.

The **Contractor's Tender** is the completed Tender documents submitted by the Contractor to the Employer for the execution and completion of the Works and the remedying of any defects in accordance with provisions of the Conditions of Contract. Every rate entered in the Bills of Quantities shall form part of the Contract, whether or not such a rate shall be employed in the computation of the Contract Price.

The **Contract Price** is the price stated in the Letter of Acceptance and the Form of Agreement, and thereafter as adjusted in accordance within the provisions of the Conditions of Contract.

Cost is all the expenditure properly incurred or to be incurred, whether on or off the Site, including overheads and other charges properly allowable, but does not include profit.

Days are calendar days; **Months** are calendar months.

Day works are varied work inputs subject to payment on a time basis for the Contractor's employees and equipment and materials.

A **Defect** is any part of the Works not completed in accordance with the Contract.

Defects Certificate is either a list of Defects notified before the expiry of the Defects Notice Period which the Contractor has not corrected, or when there are no such Defects a statement that there are none.

Defects Notification Period is the period named in the Contract Data during which the Supervisor should give the Contractor notice of any defects of which he is aware, and is calculated from the Completion Date.

The **Drawings** are all drawings and technical information of a like nature provided by the Employer to the Contractor under the Contract.

The **Employer** is the party who will employ the Contractor to carry out the Works and where **customer** is used shall mean the same.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

The **Initial Contract Price** is the Contract Price stated in the Letter of Acceptance at the date of the Employer's written acceptance of the Quotation/Tender.

The **Intended Completion Date** shall be based on the Contractors work programme as agreed on by the Supervisor at the date of acceptance and is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Supervisor by issuing an extension of time, pursuant to the Conditions of Contract.

Materials are all materials brought to the Site to be used and incorporated by the Contractor in the construction of the Works.

Plant is any integral part of the Works, which is to have a mechanical, electrical, chemical or biological function.

Retention Money is the aggregate of all monies retained by the Employer.

The **Site** is the area defined as such in the Contract Data.

Specification is the Specification of the Works included in the Contract, and any modification or addition made or approved by the Supervisor.

The **Start Date** is given in the Contract Data. It is the date when the Contractor shall commence work on the Contract. It does not necessarily coincide with any of the Site Possession Dates.

The **Supervisor** is the person or firm named in the Contract Data who is the representative of the Employer, and who is responsible for supervising the Contractor, administering the Contract, certifying payments due to the Contractor, issuing and valuing variations to the Contract, awarding extensions of time, and valuing the Compensation Events.

The **Supervisor's Representative** is the person appointed by the Supervisor, to carry out such duties and exercise such authority that may be delegated to him by the Supervisor.

Temporary Works are works designed, constructed, installed and removed by the Contractor, and which are needed for construction or installation of the Works and remedying of any defects.

A **Variation** is an instruction given by the Supervisor which varies the Works.

Work Programme is the Contractor's schedule of methods and activities by means of which the Contractor will complete the work by the intended Completion Date.

The **Works** are what the Contract requires the Contractor to construct, install and hand over to the Employer.

2.0 INTERPRETATION

2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female, and vice versa. Headings and cross-references between clauses have no significance. Words have their normal meaning under the language of the Contract unless specifically defined.

2.2 If sectional completion is specified in the Contract Data, 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 Wherever in the Contract provision is made for the giving or issue of any notice, consent, approval, certificate or determination by any person, unless otherwise specified such notice, consent, approval, certificate or determination shall be in writing.

3.0 LANGUAGE AND LAW

3.1 The language of the Contract and the law governing the Contract are stated in the Contract Data.

4.0 PRIORITY OF CONTRACT DOCUMENTS

4.1 The several documents forming the Contract shall be mutually explanatory to one another, and shall be interpreted in the order of priority as listed in the Appendix to Form of Agreement.

5.0 SUPERVISOR'S DECISIONS

5.1 The Supervisor will decide Contractual matters between the Employer and the Contractor fairly and impartially.

6.0 DELEGATION

6.1 The Supervisor may delegate any of his duties and responsibilities to other people except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

7.0 COMMUNICATIONS

7.1 Communications between parties, which are referred to in the Conditions of Contract, are effective only when in writing. A notice is effective only when it is received.

8.0 SUBCONTRACTING

8.1 **No sub contraction** of the works will be carried out.

9.0 OTHER PARTIES

9.1 The Contractor shall co-operate and share the Site with other Contractors, public authorities, utilities and the Employer as necessary during the period of the Contract.

10.0 INDEMNITIES

10.1 Each party will be liable for and indemnify the other against losses, expenses and claims for loss or damage to physical property, personal injury and death caused by his own acts or omissions.

10.2 The party claiming indemnity shall take all reasonable steps to mitigate the loss or damage that may occur.

10.3 The Contractor will indemnify the Employer against claims for damage caused by the movement of his Equipment or Temporary Works outside the Site.

11.0 QUERIES ABOUT THE CONTRACT DATA

11.1 The Supervisor will clarify queries about the Contract Data.

12.0 CONTRACTOR TO CONSTRUCT THE WORKS

12.1 The Contractor shall construct and install the Works in accordance with the Specification and Drawings.

12.2 The Works shall be carried out using suitable construction methods. The equipment can be owned by the Contractor, rented from private operators, leased from a leasing company, or rented from the Employer.

13.0 THE WORKS TO BE COMPLETED BY THE INTENDED COMPLETION DATE

13.1 The Contractor may begin the Works on the Start Date, shall carry out the Works in accordance with the programme submitted by him, as updated with the approval of the Supervisor, and complete them by the Intended Completion Date.

14.0 HEALTH AND SAFETY

14.1 The Contractor shall be responsible for the safety of all activities on the Site. Due precautions must be taken by the Contractor at his own cost for the safety of his employees including those of his sub- Contractors and all other persons on the Site, and in collaboration with and to the requirements of the local health authorities to ensure that first aid equipment are available at all times throughout the period of the Contract and suitable arrangements are to be made for prevention of epidemics and for all necessary welfare and hygiene requirements.

14.2 The Contractor's responsibilities shall include:-

(a) the execution of suitable arrangements for ensuring safety and absence of risks to health in connection with the use, handling, storage, transport and disposal of Materials;

(b) the provision of protective clothing and equipment, first aid equipment and other requirements as are necessary and such information, instruction, training and supervision as are necessary to ensure the health and safety at work of all persons employed on the Works in accordance with the applicable laws;

(c) the provision and maintenance of access to all places on the Site in a condition that is safe and without risk of injury;

(d) Reporting to the Supervisor's Representative, within 24 hours of the occurrence, of any accident at or about the Site or in connection with the execution of the Works. The Contractor shall also report such accident to the competent authority wherever such report is required by law;

(e) protection of the environment on and of the Site, and to avoid nuisance to persons or damage to the vegetation or to property of the public, or other causes arising out of the execution of the Works.

15.0 POSSESSION OF THE SITE

15.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of all parts of the Site is not given by the date stated in the Contract Data, the Employer is deemed to have delayed the start of the relevant activities and this is a Compensation Event.

16.0 ACCESS TO THE SITE

16.1 The Contractor shall allow the Supervisor and any person authorized by the Supervisor 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, including to stored Plant, Equipment and Materials.

17.0 INSTRUCTIONS

17.1 The Contractor shall carry out all instructions of the Supervisor, which are in accordance with this Contract.

18.0 DISPUTES AND PROCEDURE FOR SETTLING DISPUTES

18.1 Disputes about an action taken by the Supervisor or the Supervisor's representative shall be settled as follows:-

(a) If the Contractor believes that an action of the Supervisor or the Supervisor's Representative was not in accordance with the Contract or was outside the authority given by the Contract, he may notify the Adjudicator and the Supervisor of the disputed action within 14 days of the action.

(b) Within 14 days of the notification the Supervisor shall provide the Adjudicator and the Contractor with information upon which the disputed action was based. Within 14 days of receiving this information the Contractor may provide the Adjudicator and the Supervisor with any other information upon which he believes the Supervisor or the Supervisor's Representative should have based the disputed action.

(c) The Adjudicator shall decide whether the disputed action was in accordance with the Contract and whether it was within the authority given by the Contract. If he decides that it was not, he shall decide what action should have been taken and assess any additional cost and delay which the dispute itself has caused or will cause to the Contractor. The Adjudicator shall make his assessment in the same way as a Compensation Event is assessed.

18.2 Disputes about action not taken by the Supervisor or Supervisor's Representative shall be settled as follows:-

(a) If the Contractor believes that the Supervisor or the Supervisor's Representative has not taken an action that the Contract requires, he may notify the Supervisor.

(b) If the action has not been taken within 7 days of this notification, the Contractor may notify the Adjudicator and the Supervisor within a further 7 days. The Contractor may include in this notification information which he believes shows that the Supervisor or the Supervisor's Representative should have taken the action. Within 7 days of the notification to the Adjudicator, the Supervisor shall supply the Adjudicator with information that he believes shows that the Supervisor or the Supervisor's Representative should not have taken the action.

(c) The Adjudicator shall decide whether, in accordance with this Contract, the action should or should not have been taken. If the Adjudicator decides that it should have been taken, the action shall be implemented and he shall assess any additional cost and delay that the dispute itself has caused or will cause to the Contractor. The Adjudicator shall make his assessment in the same way as a Compensation Event is assessed.

18.3 The Adjudicator shall notify the Supervisor and the Contractor of his decision, of the reason for his decision and of any assessment within 7 days of receiving the information or within a longer period that has been agreed by the Supervisor and the Contractor. The Supervisor shall implement the Adjudicator's assessment as if it had resulted from a Compensation Event.

B. TIME CONTROL

19.0 PROGRAMME

19.1 Within the time stated in the Contract Data the Contractor shall submit to the Supervisor for his approval a Work Program showing the general methods, arrangement, order and timing for all the activities in the Works, with specific emphasis on the labour requirements, equipment utilization and production. The Contractors work program shall take in account all statutory holidays and Sabbath days that will be observed by the Supervisor.

19.2 An update of the Work Program is a subsequent Work 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.

19.3 The Contractor is to submit to the Supervisor, for his approval, an updated Work Program at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Work Program within this period, the Supervisor may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Work Program has been submitted.

19.4 The Supervisor's approval of the Work Program does not alter the Contractor's obligations. The Contractor may revise the Work Program and submit it to the Supervisor again at any time. A revised Work Program is to show the effect of Variations and Compensation Events.

20.0 EXTENSION OF THE INTENDED COMPLETION DATE

20.1 The Supervisor shall 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 and which would cause him to incur additional cost.

20.2 The Supervisor shall decide whether and by how much to extend the Intended Completion Date within 14 days of the Contractor asking him to decide upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to co-operate in dealing with a delay, the delay by his failure shall not be considered in assessing the new Intended Completion Date.

21.0 ACCELERATION

21.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Supervisor will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date is adjusted accordingly and confirmed by both the Employer and the Contractor.

21.2 If the Contractor's priced proposals for acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.

22.0 DELAYS ORDERED BY THE SUPERVISOR

22.1 The Supervisor may instruct the Contractor to delay the start or progress of any activity within the Works.

23.0 MANAGEMENT MEETINGS

23.1 Either the Supervisor or the Contractor may require the other to attend a management meeting. The business of a management meeting is to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

23.2 The Supervisor is to record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Supervisor either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

24.0 EARLY WARNING

24.1 The Contractor shall promptly inform the Employer and Supervisor of any error, omission, fault and other defect in the design of or specifications for the Works which are discovered when reviewing the Contract Documents or any event in the process of execution of the Works, which may adversely affect the quality of the work, increase the Contract Price or delay the Intended Completion Date. The Supervisor may require the Contractor to provide an estimate of the expected effect of the omission, fault or circumstance on the Contract Price and Completion Date. The estimate is to be provided by the Contractor as soon as reasonably possible.

24.2 The Contractor shall co-operate with the Supervisor in making and considering proposals for how the effect of such an omission, fault or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Supervisor.

C. QUALITY CONTROL

25.0 IDENTIFYING DEFECTS

25.1 The Supervisor shall check the Contractor's work and notify the Contractor of any Defects that he finds. Such checking does not affect the Contractor's responsibilities. The Supervisor may instruct the Contractor to search for a Defect and to uncover and test any work that he considers may have a Defect.

26.0 TESTS

26.1 If the Supervisor instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor is to pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

27.0 CORRECTION OF DEFECTS

27.1 The Supervisor shall give notice to the Contractor of any Defects of which he is aware before the end of the Defects Notification Period, which begins at the Completion Date. During the Defects Notification Period the Contractor shall rectify any defects to the Works.

27.2 Every time notice of a Defect is given, a Defects Correction Period of the notified Defect begins. The Contractor shall correct the notified Defect within the Defects Correction Period. The length of the Defects Correction Period is stated in the Contract Data.

27.3 The Contractor shall correct Defects which he notices himself before the end of the Defects Notice Period.

27.4 The Supervisor shall certify with the issue of a Defects Correction Certificate that all Defects have been corrected when all known Defects have been corrected. If Defects are not the fault of the Contractor, the corrections will be paid for at the unit rates or day work rates of the Contract.

28.0 UNCORRECTED DEFECT

28.1 If the Contractor has not corrected a notified Defect within the Defects Correction Period, the Supervisor assesses the cost of having the Defect corrected by a third party.

28.2 The Supervisor shall give the Contractor at least 14 days' notice of his intention to use a third party to correct a Defect. If the Contractor does not correct the Defect himself within this notice period, the Supervisor may have the Defect corrected by the third party. The Contractor will pay the cost of the correction from his monies due or to become due.

D. COST CONTROL

29.0 BILLS OF QUANTITIES

29.1 The Bills of Quantities shall contain items for the construction, installation, testing and commissioning work to be done by the Contractor.

29.2 The Bills of Quantities shall be used to calculate the Contract Price. The Contractor shall be paid for the quantity of the work done at the rate in the Bills of Quantities for each item.

30.0 CHANGES IN THE QUANTITIES

30.1 If the final quantity of the work done reduces from the quantity in the Bills of Quantities for the particular item by more than 30 percent, provided the change exceeds ten (10) percent of the Initial Contract Price, the Supervisor is to adjust the Contract Price in

agreement with the Contractor, having regard to all material and relevant factors including the Contractor's site and general overhead costs of the Contract.

30.2 If requested by the Supervisor, the Contractor shall provide the Supervisor with a detailed cost breakdown of any rate in the Bills of Quantities.

31.0 VARIATIONS

31.1 All Variations are to be included in updated Work Programs produced by the Contractor.

31.2 Should, in the opinion of the Supervisor, the rate of progress be too slow to complete the Works assigned to the Contractor within the prescribed Completion Date, the Supervisor may decrease the quantity of the works to ensure that all the works within the reduced scope are completed within the set Completion Date. In case such a decrease in the quantity of Works results in a reduction of the Contract Sum not exceeding 10 percent, the Contractor will not be entitled to any revision of rates or claim arising out of such a Variation.

32.0 PAYMENTS FOR VARIATIONS

32.1 The Contractor shall forecast the cost effect of all proposed Variations on the Contract Price and provide the Supervisor with a quotation for carrying out the Variation when requested to do so by the Supervisor. The Supervisor shall assess the quotation, which is to be given within seven (7) days of the request or within any longer period stated by the Supervisor and before the Variation is ordered by him.

32.2 If the work in the Variation corresponds with an item description in the Bills of Quantities and if, in the opinion of the Supervisor, the volume of work does not cause the cost per unit of quantity to change, the rate in the Bills of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity does not correspond with items in the Bills of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.

32.3 If the Contractor's quotation is unreasonable, the Supervisor may order the Variation and make a change to the Contract Price which shall be based on his own forecast of the effects of the Variation on the Contractor's costs.

32.4 If the Supervisor decides that the urgency of 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.

32.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

33.0 PAYMENT CERTIFICATES

33.1 The Contractor shall submit to the Supervisor at intervals stated in the Contract Data and in a format to be specified by the Supervisor, statements of the estimated value of the work completed less the cumulative amount certified previously.

33.2 The Supervisor shall check the Contractor's statements and certify the amount to be paid to the Contractor.

33.3 The Supervisor shall determine the value of work completed.

33.4 The value of work executed shall comprise the value of the quantities of the items in the Bills of Quantities completed.

33.5 The value of work completed includes the valuation of Variations, Advance Payments, Compensation Events and deductions for Retention Money.

33.6 The Supervisor 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.

34.0 PAYMENTS

34.1 Payments shall be adjusted for Retention Money. The Employer shall pay the Contractor the amount certified by the Supervisor within 30 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 is calculated from the date by which the payment should have been made at the rate of interest for commercial borrowing.

34.2 Items of the Works for which no rate or price has been entered in the Bills of Quantities will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

34.3 If a Compensation Event causes additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price is increased and/or the Intended Completion Date is extended. The Supervisor decides whether and by how much the Contract Price is increased, and whether and by how much the Intended Completion Date is extended.

34.4 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it is to be assessed by the Supervisor and the Contract Price adjusted accordingly. If the Contractor's forecast is unreasonable, the Supervisor is to make his own forecast and adjust the Contract Price on that basis. The Supervisor will assume that the Contractor will react competently and promptly to the event.

34.5 The Contractor shall **NOT** be entitled to compensation to the extent that the Contractor not having given early warning or not having co-operated with the Supervisor adversely affects the Employer's interests.

(b) 35.0 CURRENCIES

35.1 All payments shall be made in Uganda Shillings.

(c) 36.0 PRICE ADJUSTMENT

36.1 Adjustments to the Contract Price shall be made in respect of a major rise or fall in the cost of local labour and specified materials as set out in this Sub-Clause.

(a) Local Workmen

"Local Workmen" means skilled and semi-skilled workmen of all trades engaged by the Contractor on the Site for the purpose of or in connection with the Contract or engaged full time by the Contractor off the Site for the purpose of or in connection with the Contract (by way of illustration but not limitation: workmen engaged full time in any office, store, workshop or quarry).

"Basic Rate" means the applicable basic minimum wage rate stated in Schedule III of the Tender Documents, and prevailing on the date 14 days prior to the latest date for submission of Tenders by reason of any National Statute, or Ordinance**.**

"Current Rate" means the applicable basic minimum wage rate for Local Workmen prevailing on any date subsequent to the date 14 days prior to the latest date set for submission of Tenders.

(b) Specified Materials

For the purpose of this Sub-Clause:

"Specified Materials" means the materials stated in Schedule III of the Tender Documents required on the Site for the execution and completion of the Works.

"Basic Prices" means the current prices for the Specified Materials stated in Schedule III of the Tender Documents, and prevailing on the date 14 days prior to the latest date for submission of Tenders.

(c) Overheads and Profits Excluded

In determining the amount of any adjustment to the Contract Price pursuant to this Sub-Clause, no account shall be taken of any overheads or profits.

37.0 RETENTION MONEY

37.1 The Employer shall retain from payment due to the Contractor the proportion stated in the Contract Data until Completion of the whole of the Works.

37.2 On Completion of the whole Works and submission of completion report as specified in the Contract Data, the total amount retained is paid to the Contractor after the Supervisor has certified that all Defects notified by him to the Contractor before the end of this period have been corrected.

38.0 LIQUIDATED DAMAGES AND PENALTIES

38.1 The Contractor shall pay Liquidated Damages to the Employer at the rate per calendar day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date, or any Intended Completion Date revised in accordance with Clause 29. The Employer may deduct Liquidated Damages from payments due to the Contractor. Payment of Liquidated Damages does not affect the Contractor's liabilities.

38.2 If the Intended Completion Date is extended after Liquidated Damages have been paid, the Supervisor 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.

E. FINISHING THE CONTRACT

39.0 COMPLETION

39.1 The Supervisor shall issue a Certificate of Completion certifying completion of the Works to the Contractor and the Employer when he decides that the Works are fully completed.

39.2 The Supervisor or his Representative may issue a Partial Completion Certificate for each section of the Works that has been fully and acceptably completed in accordance with the Specifications and Conditions of Contract.

40.0 TAKING OVER

40.1 The Employer takes over the Site and the Works within seven (7) days of the Supervisor issuing a Certificate of Completion.

41.0 TERMINATION

41.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract that substantially deprives him of the principal benefits of the Contract.

41.2 Fundamental breaches of Contract, shall include, but are not limited to the following:-

(a) the Contractor stops work for 14 days when no stoppage of work is shown on the current Work Programme, and the stoppage has not been authorized by the Supervisor;

(b) the Supervisor instructs the Contractor to delay the progress of the Works and the instruction is not withdrawn within 21 days; the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;

(c) a payment certified by the Supervisor is not paid by the Employer to the Contractor within 30 days of the date of the Supervisor's certificate;

(d) the Supervisor gives notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Supervisor;

(e) The Contractor has delayed the completion of the Works beyond the Intended Completion Date by the number of days for which the maximum amount of Liquidated Damages can be paid, as defined in the Contract Data.

41.3 When either party to the Contract gives notice of a breach of Contract to the Supervisor for a cause, the Supervisor shall decide whether the breach is fundamental or not.

41.4 Notwithstanding the above, the Employer may terminate the Contract at his convenience.

41.5 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.

1.0 TECHNICAL SPECIFICATIONS

Section 1.02 A. GENERAL ITEMS

All materials used in the works shall be new and of the quality and kind specified.

The contractor is to provide, at his expense, samples and test reports of all materials to be used in the works.

The materials and workmanship shall, unless otherwise qualified in these specifications, confirm to the Standard Specification of Materials and Workmanship for Building Works issued by the Ministry of Works, Housing and communication of the Republic of Uganda.

Before starting work the contractor is required to survey the site and report any differences or discrepancies with the drawings.

B. EXCAVATION AND EARTHWORK.

B.1 The surveyor should confirm the existing ground levels, setting out to conform to nearby road alignment, existing structures and facilities.

B.2 Excavation may be hand or mechanical, as necessary to meet the specification. The excavation depth shall be maintained to 1m unless otherwise with the approval of the Engineer.

B.3 Any valuable Materials arising from the excavations are to remain the property of the Client/Employer. Unless the contractor is instructed to remove them from site.

B.4 All filling material is to be from an approved source and of a composition approved for the Construction activities and capable of being compacted as specified to 95% Modified AASHTO Standard Density at Optimum Moisture content.

C. WORKMANSHIP.

C.1 Cut down, grub up roots trees and fill voids with approved material, recommended by the Engineer for the works.

C.2 Destroy all white ant nests within perimeter and 20 meters of the building. Destroy queen ants impregnate holes and tunnels with anti-termite preferably Termidor and fill voids with approved material.

C.2 Hard materials arising from site excavations may be used as hardcore if complying with the specification for hard filling material approved by the Engineer's representative.

C.3 Before beginning excavation, excavate the top soil as specified or as necessary and keep separate from excavated subsoil. Where necessary, separate provision shall be made for overhaul of this waste material to an approved place or borrow pit in the project.

C.4 Excavate widths and depths required for the constructions shown on the drawings, including working space where necessary. Excavation in excess of requirements must be back filled to required levels at the Contractors expense. Fill and compact in layers not exceeding 200mm and well rammed.

C.5 Support sides of excavation as may be necessary, using planking and strutting. The contractor will be held responsible for the execution and subsequent removal of all necessary sheeting, timbering, strutting and shoring to ensure the safety of workers, to secure the excavations and to prevent any movement.

C.6 Back fill foundation trenches, working space and the like with earth or "lateritic soil" murram filling well compacted in layers not exceeding 200mm deep. Avoid damage to adjoining construction and do not back fill against brick work until mortar has set hard.

C.7 Maintain all excavation free from water, including spring, running water and storm water. If it is likely that standing water will occur in excavations before the placing of concrete or other constructions do not excavate the final 100 or 150mm of soil until immediately before construction takes place.

C.8 Spread and level on site or remove from the site all surplus material as directed.

C.9 Treat the top surface of all hardcore and aggregate filling with anti-termite applied with the manufacturer's instructions.

D. CONCRETE WORK.

D.1 All Cement used for concrete shall be Portland cement complying to BS 12, or Ordinary Portland Cement for structural members, which is required to attain sufficient strength of above 75% within the shortest possible time in order to allow the subsequent stage of construction to proceed.

D.2 Aggregates shall be to BS 882, hard, durable, clean, and free from deleterious materials in a form or in sufficient quantity such as to affect adversely the strength or durability of concrete or to produce corrosion of the reinforcement. The nominal size of aggregate shall conform to maximum 20mm.

D.3 Store each type and size of aggregate separately in area covered by well drained tightly laid wood planks, sheet metal, hard compact gravel, concrete or other hard surface. Prevent the mixing of different types of aggregate and the intrusion of foreign matter.

D.4 During batching, cement shall be determined by weight. The quantity of fine and course aggregate may be measured by weight or volume using correctly calibrated gauge boxes of dimension 300mmx300mmx400mm. The quantity of water/cement ratio must be accurately controlled to ensure a constant water cement ratio.

D.5 Concrete with a slump value greater than the specified maximum must not be used in the work.

In thin walls, beams and the like and in heavily reinforced and congested areas 75mm maximum.

- ❖ In larger members 50mm maximum
- ❖ In suspended slabs 75mm maximum
- ❖ For mass concrete (un-vibrated) 100mm maximum

D.6 When transporting concrete, avoid contamination, segregation or loss of ingredients. The method of transporting concrete must permit placing and compaction within the times specified for each mix.

D.7 Prior to placing concrete ensure that all surfaces on which concrete is to be placed are clean, with no debris or free water. When concreting care should be taken to prevent damage to or displacement of reinforcement, formwork and freshly placed concrete.

D.8 Place concrete made on site with Ordinary Portland Cement (OPC) within 20 minutes after the addition of water to the mix.

D.9 Before placing concrete in foundations ensure that the excavated bottom is clean and to the profile shown on the drawings. Do not place concrete in excavations before the excavation has been inspected and approved by the Engineer. Unless otherwise directed, concrete grade 20~40 shall be compacted by mechanical vibration so as to ensure a dense homogeneous mass throughout every part of the works and produce a good surface finish.

D.10 After placing and compacting, cover concrete surfaces for a continuous period of not less than seven days unless otherwise directed. The structure must not be loaded before the concrete has attained the required strength. Loads in excess of the design loads must not be imposed on the concrete.

E. REINFORCEMENT

E.1 The steel reinforcement shall be mild steel or high tensile steel as detailed on the drawings or schedules and comply with BS 4449 and 4461 respectively.

E.2 Tests verifying compliance with BS 4449 or BS 4461 are to be provided by the supplier.

E.3 Provide spacers and chairs as necessary to support reinforcements in position.

E.4 Annealed iron tying wire must be minimum 1.6mm diameter (16swg).

F. WORKMANSHIP.

F.1 At the time of placing concrete, reinforcement must be clean and free from all loose mill scale, loose dust, oil, grease, retarders or any other substance which might adversely affect the steel or concrete or the bond between them.

F.2 The Contractor will be deemed to have satisfied himself as the correctness of the bending schedule before cutting or bending reinforcement.

F.3 Secure reinforcement against displacement with tying wire or approved steel clips. Does not tack weld reinforcement unless directed.

F.4 Reinforcement to be continuous across construction joints unless otherwise shown on the drawing.

G. FORMWORK

G.1 Provide all formwork necessary to provide finished concrete work to the dimensions and finishes specified.

G.2 The Contractor will remain entirely responsible for the stability and safety of formwork, and for its adequacy to produce the concrete work specified.

G.3 Design and construct formwork to withstand the worst combination of total weight of formwork, concrete, construction loads and wind load.

G.4 Strike formwork without disturbing, damaging or overloading the structure.

G.5 Props to cantilevers shall not be removed before the counter balance construction has been completed and fully matured.

G.6 Wedges and other devices for adjusting props and struts must be spiked or locked in position before concrete is placed.

Minimum Period for retaining formwork in position is as follows:-

LOCATION OF FORMWORK	MINIMUN PERIOD (DAYS)
Vertical formwork to walls	2
Column piles, footings	2
Soffit forms to slabs (props left in)	7
Removal of props to slabs	14
Bottom boards of piles (intermediate supports left in)	12
Soffits of beams less than 6m span	16
Soffits of beam > 6m span	28

The periods given above are based on average weather conditions and the use of Ordinary Portland cement.

H. WALLING.

Section 1.03 H.1 MATERIALS

Unload and handle bricks without soiling, chipping or otherwise damaging. Do not tip bricks from vehicles. Stack bricks on edge on level hard standing.

H.2 All Cement used for making mortar shall be Portland cement complying with BS 12, should be kept on pallets, and protected from water and dump.

H.3 All sand used for making mortar shall be clean well graded. It shall be free from lamps of stone, earth, loam, dust, salt, organic matter and any other deleterious substance, sieved through a fine sieve and washed if so directed.

H.4 The water shall be clean, free from dirt, vegetable matter, minerals salts or other impurities.

I. WORKMANSHIP

I.1 The cement mortar (1:3) shall be composed of 50kgs of Portland cement to 0.085 cubic meters of sand. The cement mortar (1:6) shall be composed of 50kgs of Portland cement to 0.17 cubic meters of sand measured in specially prepared gauge boxes and thoroughly mixed in an approved manner with water added afterwards until all parts are completely incorporated and brought to proper consistency.

J. BRICKS

J.1 Bricks shall be of common classification unless otherwise specified. All clay bricks shall be sound, hard, well burnt and free from cracks. The Contractor shall be entirely responsible for the selection of bricks, free from defects, from batches delivered to site.

The dimensions of bricks will be within 5 millimetres of the nominal length, width

and height as follows:-

Dimensions	**Nominal**	**Max**	**Min**
Length	215	220	210
Width	100	105	95
Height	75	80	70

J.2 The damp proof course is to consist of 10mm screed of cement and sand (1:2) laid over the area walls and finished to level surface and covered with including an approved fibre based bituminous damp proof course weighing not less than 2.7Kgs per square meter and lapped at 225mm at all joints and intersections. All walls are to be carefully cleaned and wetted before the screed is laid.

K. SHEET ROOFING.

K.1 Do not allow any person other than the operatives during fixing the roofing to have access to the area below while roofing is under construction.

K.2 Lay and fix roofing sheets and accessories in accordance with manufacture's recommendations and to make the whole sound and water tight. Do not damage or weaken structural members when fixing sheets, which must be of size and pattern to suit the roof members. Bolts, screws and nails must be supplied complete with plastic washers.

K.3 Galvanized mild steel corrugated iron sheets to BS 3083, not less than 0.56mm (24swg) thick. Sheets must be free from twist or buckle. Galvanizing must be clean, free from surface defects, and firmly bonded to the steel. Ridges, valleys, flashings and the like to be of the same profile and quality as the roofing sheets.

K4 Galvanized mild steel ridges and valleys must be not less than 0.56mm (24swg) thick, of profile to suit the specified construction, and not less than 300mm wide.

K.5 Galvanized roofing sheets specified as "factory painted" shall mean galvanized sheets supplied by the manufacturer with a stove enameled or other approved paint finish.

K.6 Roofing sheets and flashings supplied as "factory painted" shall be free of any imperfections, blemishes or rust. No touching up will be permitted on site.

K.7 Softwood timber battens are to be treated with an approved preservative, either by pressure impregnation or by three coats brush applied including full treatment to end grains.

K.8 Lay all sheets with end laps of not less than 150mm. Lay 75mm standard corrugated sheets with one and half corrugated side lap. Lay super seven sheets with single corrugation lap. Lay all sheets with open joint of side lap to face away from the prevailing wind.

L. CARPENTRY

L.1 All timber for permanent work in the building shall, before be approved by the Supervising Officer and shall be of the best quality in accordance with appropriate specifications for its respective grade.

L.2 Structural timber is to be sawn on all faces and edges unless described as wrought.

L.3 Material – Timber for structural use is to be cedar, pine, cypress or other approved species.

L.4 All carpentry timbers to be used should be seasoned to a moisture content of not more than 18% of dry weight. All joinery timbers are to be seasoned to a moisture content of not more than 15% of dry weight.

L.5 All timber for necessary works is to be purchased immediately the contract is signed and when delivered is to be stacked for such further seasoning as may be necessary. Preparation of the timber is to be commenced simultaneously with the commencement of works generally. All timber and assembled wood work is to be protected from weather and stored in such a way as to prevent attack by decay, fungi termites or other insects.

L.6 Moisture content at the time of manufacture shall not exceed 13% for external joinery components and 10% for internal joinery components.

M. IRONMONGERY.

M.1 The Contractor is to check consignment of ironmongery upon receipt and store them in safe keeping until required for fixing.

M.2 All ironmongery shall be fixed and fitted in accordance with the manufacturer's instructions. Rates for fixing are to include for all cutting, sinking, boring, mortising and fitting in hardwood or softwood and for supplying all necessary and matching screws. Rate for door furniture shall also include for fixing before painting, removal during painting operations and afterwards fixing and for labelling all keys with door references and handing to the Employer upon completion.

M.3 All locks, springs and other items of ironmongery with movable parts shall be properly tested, oiled, cleaned and adjusted where necessary and left in perfect working order upon completion.

N. PLASTER WORK AND RENDERING.

N.1 Include for any scaffolding, ladders and cradles which may be required for working at any height.

N.2 Prepare a specimen panel of not less than $6m^2$ of each mix and surface finish of plastering and rendering to be used in the work.

N.3 All surfaces to be plastered or rendered shall be brushed clean and be well wetted before plaster is applied. All plaster and rendering shall be kept continuously damp for seven days after application. All arises shall be finished true and slightly rounded except where otherwise stated, shall be run at the same time as the adjoining plaster. No partially or wholly set plaster or rendering will be allowed to be used or re-mixed.

MATERIALS

N.4 All sand shall be hard, clean durable and free from contaminants. In case of sand being unsuitable, the general standard will be required to the relevant BS 1198-1200 "Building Sands".

N.5 Ordinary Portland cement to BS 12, delivered to site in sealed bags marked with the approved manufacturer's name.

N.6 Before plastering or rendering commences, all openings and chases will have been completed and made good.

N.7 Backgrounds shall be cleaned by removing any efflorescence, laitance, dirt and loose material by brush.

N.8 Steel float finish; to be in two coats, overall thickness 15mm.

N.9 Wood float finish; to be in single coat unless otherwise directed, overall thickness 12mm: Cement render: Cement-Sand (1:4) rendering described as 20mm thick or over shall be applied in two coats.

N.10 The contractor shall cut out and make good all cracks, blisters and other defects and leave the whole of plastering and rendering perfect at completion. When making good defects the plaster shall be cut out to rectangular shape with edges undercut, to form dovetailed keys an all finishes flush with the face of the surrounding plaster.

N.11 Locally available construction material shall be obtained from reputable sources within the vicinity of the project. The contractor shall furnish the engineer with the local characteristics of the available materials such as local poles, reeds, and grass for suitability.

O. PAINTING AND DECORATING.

O.1 The Contractor will be required to paint a specimen panel of two square meters and obtain the approval from the Employer.

MATERIALS.

O.2 All paints shall be first grade, and shall be applied strictly in accordance with the manufacturer's specification.

O.3 All paints to be used should be obtained from the following manufacturer's herein after described. All primers, undercoats, finishing coats and thinners to be applied to any surface shall be supplied from the same manufacturer.

A. Robbialac

B. Crown paints

C. Dulux paints

D. Sadolins

E. Valspar paints

WORKMANSHIP

O.4 Before painting or decorating is started the Contractor shall arrange that all other trades have been completed and other tradesmen removed from the vicinity of the area to be painted. All plaster mortar, oil or stains of any kind shall be removed by the Contractor from work to be painted.

O.5 Clean surfaces to ensure that mortar and plaster splashes and loose flaking material are removed. Remove surface salts with a coarse dry cloth and leave for 48 hours. Repeat process as necessary until efflorescence ceases.

O.6 Plastered and rendered surface to be painted shall be allowed to dry for a minimum of two weeks before application is done.

O.7 Woodwork to be painted finishes shall be well rubbed down. All knots shall be covered with good knotting compound before priming and all defects shall be filled with hard stopping after priming.

O.8 The number of coats stated in the description in the Bills of Quantities shall be applied in addition to any primers, stoppers, fillers, sealers, knotting, etc., required. The Contractors rates shall be deemed to include for supplying and applying all such preparatory materials as may be required by the standard specification as recommended by the manufacturer of the finishing coat for the particular surface to be covered. The Contractors price shall further include for preparatory works needed. Unless otherwise described prices for painting surfaces of woodwork shall include for internally and externally.

P. LANDSCAPING/ENVIRONMENTAL PROTECTION

P.1 Areas to be grassed shall be cleared of all debris and dug to a depth of 300mm. Grass be planted or seeded as instructed and lightly rolled.

P.2 the contractor shall avoid practices that affect the environment negatively. Such practices shall be defined in the context of NEMA guidelines and for building or development projects in the rural areas or otherwise.

Q. MEASUREMENTS AND PAYMENT SYSTEMS

Q1 the fixed rate contract system has been adopted. The aggregates quantities of the executed works shall be deemed to have been included in the tender sum as necessary. The contractor should have estimated the quantities of the works involved prior to acceptance letter.

Q2 the system of payment commensurate with the prevailing conditions shall be specified

Bills of Quantities: Proposed construction of a Maternity Ward at Health Centre III					
Item	**Description**	**Unit**	**Qty**	**Rate**	**Amount**
				Ushs	**Ushs**
	HEALTH CENTRE IV				
	BILL NO. 1 : MATERNITY WARD				
	MAIN SUMMARY				
1	**SUBSTRUCTURE**				**0/=**
2	**ROOF**				**0/=**
3	**EXTERNAL WALLS**				**0/=**
4	**WINDOWS & EXTERNAL DOORS**				**0/=**
5	**INTERNAL WALLS & PARTITIONS**				**0/=**
6	**INTERNAL DOORS**				**0/=**
7	**INTERNAL FINISHINGS**				**0/=**
8	**FITTINGS & FURNISHINGS**				**0/=**
9	**MECHANICAL INSTALLATION**				**0/=**
10	**ELECTRICAL INSTALLATION**				**0/=**
	TOTAL MATERNITY WARD TO GENERAL SUMMARY				**0/=**

	ELEMENT NO 1				
	SUBSTRUCTURE				
	(All Provisional)				
	Note Items 1.24 to 1.37 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				
	Site Preparation				
1.01	**Excavate oversite to remove top soil average 250mm thick and remove from site.**	**m^2**	**243**		**0/=**
1.02	**Treat surface of subsoil or fillings and surroundings with approved chemical anti-termite solution: provide ten year guarantee.**	**m^2**	**243**		**0/=**
	Excavation and Earthworks.				
	Note: Rates for excavation to include for keeping excavations free from water and planking and strutting to sides of excavations				
1.03	**Excavate to reduce levels and remove from site.**	**m^3**	**5**		**0/=**
1.04	**Excavate trenches for wall foundations: commencing from reduced levels : not exceeding 1.5m deep .**	**m^3**	**80**		**0/=**
1.05	**Extra over excavation for excavating in rock**	**m^3**	**2**		**0/=**
	Disposal of excavated material				
1.06	**Selected excavated material in filling to foundation trenches : around walling : placed in 200mm layers : watered and compacted to 95% MDD**	**m^3**	**53**		**0/=**
1.07	**Remove surplus excavated material from site**	**m^3**	**27**		**0/=**
	Hardcore				
1.08	**150mm Filling : deposit, spread, level and compact : 25mm selected quarry dust blinding.**	**m^2**	**122**		**0/=**
	Insitu concrete class 25/ 20mm aggregate as described.				

1.09	**Foundations in trenches**	**m^3**	**17**		**0/=**
1.10	**100mm thick ground floor slab tamped to fabric reinforcement.**	**m^2**	**145**		**0/=**
	Total Carried to Collection				**0/=**
	Reinforcement				
1.11	**Mesh reinforcement Ref No. A98 size 200 x 200 mm weighing 1.54 kg per square metre: in floor slab: including all necessary supports**	**m^2**	**145**		**0/=**
	Sawn formwork as described to:				
1.12	**Vertical edges of surface bed : over 75mm but not exceeding 150 mm high.**	**m**	**63**		**0/=**
	Brickwork in burnt clay bricks with cement and sand (1:3) mix, laid in suitable bond, with 25 x 3mm hoop iron strips laid horizontally every alternate course.				
1.13	**230 mm thick walling.**	**m^2**	**88**		**0/=**
	Sundries				
1.14	**One layer 1000 gauge polythene sheet damp proof membrane : Under bed : 300mm laps.**	**m^2**	**145**		**0/=**
	Damp proof courses : hessian based bituminous felt: bedded in cement and sand (1:4) mortar : 300mm laps.				
1.15	**Horizontal : 200mm ditto**	**m**	**80**		**0/=**
	Plinth wall, ramp and splash apron				
1.16	**50mm Thick bed of sand on compacted ground.**	**m^2**	**49**		**0/=**
1.17	**15mm Thick cement and sand plaster to plinth walls with wood float finish.**	**m^2**	**60**		**0/=**
1.18	**125mm (average) thick concrete class 25/20mm aggregate ramp reinforced with and including formwork and fabric mesh reinforcement ref A98 as before described**	**m^2**	**8**		**0/=**

1.19	**Ditto but 50mm thick concrete splash apron ditto**	**m^2**	**49**		**0/=**
1.20	**Ditto concrete ramp beam size 60 x 80mm deep with and including necessary excavations, formwork and disposal of surplus soil.**	**m**	**12**		**0/=**
1.21	**Ditto splash apron beam size 100 x 150mm deep ditto**	**m**	**56**		**0/=**
1.22	**38mm thick cement and sand (1:3) paving on splash apron wood float finish**	**m^2**	**49**		**0/=**
1.23	**Prepare and apply three coats of black bituminous paint to plastered surfaces.**	**m^2**	**60**		**0/=**
	Total Carried to Collection				**0/=**
	<u>Earthquake areas / Soils with poor bearing capacity.</u>				
	Note: Rates for excavation to include for keeping excavations free from water and planking and strutting to sides of excavations				
1.24	**Excavate trenches for wall foundations: commencing from reduced levels : not exceeding 1.5m deep .**	**m^3**			
1.25	**Selected excavated material in filling to foundation trenches as before described.**	**m^3**			
1.26	**Remove surplus excavated material from site**	**m^3**			
	Brickwork in burnt clay bricks with cement and sand (1:3) mix, laid in suitable bond, with 25 x 3mm hoop iron strips laid horizontally every alternate course.				
1.27	**230 mm thick walling.**	**m^2**			
	Insitu concrete class 20/ 20mm aggregate as described.				
1.28	**50mm thick blinding to foundations and column bases**	**m^2**			
	Insitu concrete class 25/ 20mm aggregate as				

	described.				
1.29	**Foundations in trenches**	**m^3**			
	Insitu concrete class 25/ 20mm : vibrated reinforced as described.				
1.30	**Foundations in trenches**	**m^3**			
1.31	**Column Bases**	**m^3**			
1.32	**Columns**	**m^3**			
	Mild steel rod reinforcement as described.				
1.33	**8 mm diameter bar**	**kg**			
	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
1.34	**12 mm diameter bar**	**kg**			
	Total Carried to Collection				
	Sawn formwork as described to				
1.35	**Sides of Column bases**	**m^2**			
1.36	**Sides of Columns**	**m^2**			
1.37	**Sides of Strip foundations**	**m^2**			
	Total Carried to Collection				
	<u>COLLECTION</u>				
	-				
	Page 4/2				**0/=**

	Page 4/3				**0/=**
	TOTAL SUBSTRUCTURE TO SUMMARY				**0/=**
	ELEMENT NO. 2				
	ROOF				

	Note Items 2.25 to 2.28 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				
	Insitu concrete class 25/20mm : vibrated, reinforced as described				
2.01	**Ring beams**	**m^3**	**4**		**0/=**
	Mild steel reinforcement as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
2.02	**8 mm diameter bar**	**kg**	**125**		**0/=**
	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
2.03	**12 mm diameter bar**	**kg**	**275**		**0/=**
	Sawn formwork as described to:				
2.04	**Sides and soffites of beams**	**m**	**171**		**0/=**
	Brickwork in burnt clay bricks with cement and sand (1:3) mix, laid in suitable bond, with 25 x 3mm hoop iron strips laid horizontally every alternate course.				
2.05	**230mm Thick gable walling**	**m^2**	**12**		**0/=**
	Finishes				
	Cement and sand (1:4) render on concrete or masonry				
2.06	**15mm to walls**	**m^2**	**12**		**0/=**
	Two coats tyrolene rendering on:				

2.07	**Concrete or masonry**	**m^2**	**12**		**0/=**
	Total Carried to Collection				**0/=**
	Roof Construction				
	The following in roof construction including hoisting and fixing approximately 3.0mm above ground level.				
	Sawn cypress pressure impregnated with preservative:-				
	10 No. Trusses type T1; span 6200mm x 1445mm rise				
2.08	**50 x 100mm Purlins**	**m**	**228**		**0/=**
2.09	**50 x 100mm Strut /tie**	**m**	**62**		**0/=**
2.10	**50 x 150mm Ridge**	**m**	**26**		**0/=**
2.11	**50 x 150mm Tie beam**	**m**	**67**		**0/=**
2.12	**50 x 150mm Rafters**	**m**	**84**		**0/=**
2.13	**50 x 150mm Valley Rafter**	**m**	**12**		**0/=**
2.14	**75 x 100mm Wall Plate**	**m**	**44**		**0/=**
	02No. Trusses type T2; span 3200mm x 766mm rise				
2.15	**50 x 100mm Purlins**	**m**	**18**		**0/=**
2.16	**50 x 100mm Strut /tie**	**m**	**10**		**0/=**
2.17	**50 x 150mm Tie beam**	**m**	**7**		**0/=**
2.18	**75 x 100mm Wall Plate**	**m**	**4**		**0/=**

	Roof Covering				
2.19	**26 Gauge pre-painted profile roofing sheets fixed with side corrugation laps and 150mm end laps with and including galvanized steel drive screws with plastic washers to manufacturer's instructions.**	**m^2**	**205**		**0/=**
2.20	**28 Gauge plain (pre-coated) roll top ridge capping.**	**m**	**28**		**0/=**
2.21	**Ditto Valley Piece 1000mm girth**	**m**	**9**		**0/=**
	Eaves				
2.22	**25 x 225mm Wrot Cypress fascia board**	**m**	**69**		**0/=**
	Total Carried to Collection				**0/=**
	Painting				
	Knot prime stop and apply three coats of gloss oil paint to timber surfaces.				
2.23	**Knot, prime, stop and apply three coats of gloss oil paint to wood fascia 200-300mm girth.**	**m**	**69**		**0/=**
	Roof Vents.				
2.24	**Roof Vents size 230 x 460mm high filled with Kajjansi ventilation bricks and bat proof netting complete with all necessary timber framing.**	**no**	**3**		**0/=**
	Earthquake areas / Soils with poor bearing capacity.				
	Insitu concrete class 25/20mm : vibrated, reinforced as described				
2.25	**Ring beams**	**m^3**			
	Mild steel reinforcement as described.				

2.26	**8 mm diameter bar**	**kg**			
	High yield tensile steel bar reinforcement to BS 4449 as described.				
2.27	**12 mm diameter bar**	**kg**			
	Sawn formwork as described to:				
2.28	**Sides and soffites of beams**	**m^2**			
	Total Carried to Collection				**0/=**
	COLLECTION				
	-				
	Page 4/6				**0/=**
	Page 4/7				**0/=**
	Page 4/8				**0/=**
	TOTAL ROOF CARRIED TO SUMMARY				**0/=**
	ELEMENT NO. 3				
	EXTERNAL WALLS				
	Note Items 3.10 to 3.13 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				

	Brickwork in burnt clay bricks with cement and sand (1:3) mix, laid in suitable bond, with 25 x 3mm hoop iron strips laid horizontally every alternate course.				
3.01	**230mm thick walling.**	**m^2**	**128**		**0/=**
	Precast concrete louvre block walling in cement sand mortar (1:3) with pointed joints to approval.				
3.02	**230mm thick walling**	**m^2**	**2**		**0/=**
	Permanent Vents				
3.03	**Permanent Vent filled in with Kajjansi ventilation bricks and bat proof gauze and coffee tray wire backing complete with necessary timber framing and beading.**	**m^2**	**5**		**0/=**
	Metal work				
3.04	**100mm diameter x 3100mm galvanised iron class B pipe support with bottom end welded to 110 x 110 x 6mm thick plate set in and including concrete (1:3:6) base size 200 x 200 x 200mm deep and 100 x 80 x 6mm U-plate welded on top end**	**no**	**2**		**0/=**
3.05	**12mm diameter bolt with nut and washer including drilling 2 No. 14mm diameter holes**	**no**	**2**		**0/=**
	Cement and sand (1:4) render trowelled smooth on concrete or masonry				
3.06	**15mm to walls.**	**m^2**	**141**		**0/=**
	Two coats tyrolene rendering on:				
3.07	**Concrete or masonry**	**m^2**	**128**		**0/=**
	Painting : 'Sadolin Paints' or equal and approved.				
3.08	**Prepare and apply one undercoat and two finishing coats matt vinyl paint on plastered surfaces.**	**m^2**	**153**		**0/=**

	Total Carried to Collection				**0/=**
3.09	**Prepare and apply three coats gloss oil paint on steel pipe support 200-300mm girth**	**m**	**6**		**0/=**
	Earthquake areas / Soils with poor bearing capacity.				
	-				
	Insitu concrete class 25/20mm : vibrated, reinforced as described				
3.10	**Columns**	**m^3**			
	Mild steel rod reinforcement as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
3.11	**8 mm diameter bar**	**kg**			
	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
3.12	**12 mm diameter bar**	**kg**			
	Sawn formwork as described to				
3.13	**Sides of Column**	**m^2**			
	Total Carried to Collection				**0/=**
	COLLECTION				
	Page 4/9				**0/=**

	Page 4/10				**0/=**
	TOTAL EXTERNAL WALLS TO SUMMARY				**0/=**
	ELEMENT NO. 4				
	WINDOWS & EXTERNAL DOORS				
	Concrete Work				
	Precast concrete Class 25/12mm lintel reinforced as described including all necessary formwork and hoisting and fixing in position.				
4.01	**230 x 230 mm high**	**m**	**5**		**0/=**
	Precast concrete Grade '30' units reinforced as necessary and finished fair face on all exposed sides.				
4.02	**75 x 325 mm sunk weathered and throated window cill**	**m**	**21**		**0/=**
	Purpose made steel casement windows manufactured from standard W20 sections: manufacture, assemble and deliver to site : Supply and fix ironmongery comprising approved hinges, pivoting mechanisms, stays, fasteners to opening lights: plugged and screwed or built into walling : one coat red oxide primer before delivery.				
4.03	**Window type W4 : Size 600 x 600mm overall height: 1No. top hung opening lights size 600 x 300mm high: fixed bottom light size 600 x 300mm high.**	**no**	**2**		**0/=**

4.04	**Window type W3 : Size 1500 x 900mm overall height: 2No. side hung opening lights size 500 x 900mm high : 1 No. fixed middle light size 500 x 900mm high.**	**no**	**1**		**0/=**
4.05	**Window type W1 : Size 1500 x 1200mm overall height: 2No. side hung opening lights size 500 x 1200mm high : 1 No. fixed middle light size 500 x 1200mm high.**	**no**	**9**		**0/=**
	Burglar proofing grille comprising 12mm square bars 150mm centres both ways in cobweb pattern as described.				
4.06	**Window type W4 : Size 600 x 600mm overall height**	**no**	**2**		**0/=**
4.07	**Window type W3 : Size 1500 x 900mm overall height.**	**no**	**1**		**0/=**
4.08	**Window type W1 : Size 1500 x 1200mm overall height.**	**no**	**9**		**0/=**
	Total Carried to Collection				**0/=**
	Purpose made steel casement doors manufactured from Standard W20 Sections as described.				
4.09	**Door size 1500 x 2100mm high in two opening leaves one 900mm and other 600mm wide (D1).**	**no**	**2**		**0/=**
	Purpose made steel pannelled doors manufactured from 2mm thick mild steel plates welded both sides to RHS frames with fixing lugs cast into walling : Supply and fix approved hinges : one coat red oxide primer before delivery.				
4.10	**Door size 900 x 2100mm high (D4).**	**no**	**1**		**0/=**
	Supply and fix the following ironmongery of "UNION" Manufacture and to Architects approval complete with matching fixings to hardwood or steel				
4.11	**25mm Rubber door stop plugged to wall or floor.**	**no**	**5**		**0/=**

4.12	**3 Lever Steel door lock complete with lever furniture**	**no**	**1**		**0/=**
4.13	**3 Lever Steel door rebated lock complete with lever furniture**	**no**	**2**		**0/=**
	Glass and Glazing				
4.14	**4mm thick clear sheet glass to metal window with putty**	**m^2**	**23**		**0/=**
4.15	**Ditto but obscure glass**	**m^2**	**1**		**0/=**
	Painting				
	Prepare touch up primer and apply one undercoat and two finishing coats of gloss oil paint : on metalwork.				
4.16	**Glazed metal surfaces**	**m^2**	**32**		**0/=**
4.17	**Burglar proofing grilles**	**m^2**	**16**		**0/=**
4.18	**Metal Door and frame**	**m^2**	**4**		**0/=**
	Total Carried to Collection				**0/=**
	COLLECTION				
	Page 4/11				**0/=**
	Page 4/12				**0/=**
	TOTAL WINDOWS & EXTERNAL DOORS TO SUMMARY				**0/=**
	ELEMENT NO. 5				
	INTERNAL WALLS & PARTITIONS				
	Note Items 5.02 to 5.05 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				

	Brickwork in burnt clay bricks with cement and sand (1:3) mix, laid in suitable bond, with 25 x 3mm hoop iron strips laid horizontally every alternate course.				
5.01	**230mm Thick walling.**	**m^2**	**82**		**0/=**
	Earthquake areas / Soils with poor bearing capacity.				
	Insitu concrete class 25/20mm : vibrated, reinforced as described				
5.02	**Columns**	**m^3**			
	Mild steel rod reinforcement as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
5.03	**8 mm diameter bar**	**kg**			
	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
5.04	**12 mm diameter bar**	**kg**			
	Sawn formwork as described to				
5.05	**Sides of Column**	**m^2**			
	TOTAL INTERNAL WALLS & PARTITIONS TO SUMMARY				**0/=**

	ELEMENT NO. 6				
	INTERNAL DOORS				
	Precast concrete Class 25/12mm lintel reinforced with 4No. 12 mm high tensile steel bars and 8mm steel stirrups at 200 mm centres and including all necessary formwork and hoisting and fixing in position.				
6.01	**230 x 230 mm high**	**m**	**10**		**0/=**
	Solid core flush doors: 6mm thick internal quality plywood facing both sides: hardwood lipping to all edges.				
6.02	**45mm Door size 825 x 2050mm high (D5).**	**no**	**4**		**0/=**
6.03	**Ditto size 1450 x 2050mm high in two opening leaves one 850mm and other 600mm wide (D2).**	**no**	**4**		**0/=**
	Wrot Mahogany : Selected and kept Clean				
6.04	**25 x 50mm Architrave: two labours**	**m**	**87**		**0/=**
6.05	**50 x 150mm Door frame: two labours**	**m**	**44**		**0/=**
6.06	**50 x 150mm Transome: Ditto**	**m**	**4**		**0/=**
6.07	**12mm thick x 100 x 825mm long louvres set and including forming 36 No. 12 x 100mm wide grooves**	**m**	**10**		**0/=**
	Supply and fix the following ironmongery of "UNION" Manufacture and to Architects approval complete with matching fixings to hardwood or steel				
6.08	**Butt Hinges, 75 x 100mm : finished stainless steel.**	**prs**	**6**		**0/=**
6.09	**Double barrel, double action spring hinge : frame mounted**	**prs**	**8**		**0/=**
6.10	**25mm Rubber door stop plugged to wall or floor.**	**no**	**12**		**0/=**

6.11	**3 Lever Mortice Lock complete with lever furniture**	**no**	**4**		**0/=**
6.12	**3 Lever rebated Dead lock ditto**	**no**	**4**		**0/=**
6.13	**150 x 300mm Aluminuim push plate**	**no**	**8**		**0/=**
	Glass and Glazing				
6.14	**6mm Thick x 200 x 300mm high clear sheet glass vision panel fixed with and including 19 x 25mm timber beading.**	**no**	**8**		**0/=**
	Total Carried to Collection				**0/=**
	Painting				
	Prepare Knot, Prime, stop and apply three coats of gloss oil paint : on woodwork				
6.15	**General Surfaces : doors**	**m^2**	**40**		**0/=**
6.16	**Ditto: over 200 but not exceeding 300mm girth**	**m**	**50**		**0/=**
6.17	**Ditto not exceeding 100mm girth (Architraves and Louvres).**	**m**	**104**		**0/=**
6.18	**Prime back of frame before fixing**	**m**	**44**		**0/=**
	Total Carried to Collection				**0/=**
	COLLECTION				
	Page 4/14				**0/=**
	Page 4/15				**0/=**

	TOTAL INTERNAL DOORS TO SUMMARY				**0/=**
	ELEMENT NO. 7				
	INTERNAL FINISHES				
	Floor Finishes				
	Cement and sand (1:4) screeds and pavings : one coat: steel trowell finish : laid on concrete				
7.01	**30mm thick paving.**	**m^2**			
7.02	**125 x 125mm coved skirting**	**m**			
	Supply and fix the following terrazzo : mechanically polished to finished smooth : including plastic division strips at 2000mm centres.				
	-				

7.01B	**32mm Thick terrazzo**	**m^2**	**118**		**0/=**
7.02B	**25 x 100mm skirting with square top edge and coved junction at bottom.**	**m**	**104**		**0/=**
	Wall Finishes				
7.03	**15mm thick to Cement:Sand:Lime (mix 1:2:9) plaster, steel trowell finish to walls.**	**m^2**	**236**		**0/=**
	Supply and fix the following terrazzo : mechanically polished to finished smooth : including plastic division strips at 2000mm centres.				
7.01B	**12mm Thick terrazzo to walls of wet areas**	**m^2**	**24**		**0/=**
	Painting : 'Sadolin Paints' or equal and approved.				
7.04	**Prepare and apply one undercoat and two finishings coats of matt vinyl paint to plastered surfaces.**	**m^2**	**236**		**0/=**
	Ceiling Finishes				
7.05	**9 x 24 SWG galvanized expanded metal lathing U-nailed to timber branderings**	**m^2**	**-**		**0/=**
7.06	**Cement and sand (1:4) pricking course to metal lathing**	**m^2**	**-**		**0/=**
7.07	**12mm lime plaster to ceiling**	**m^2**	**-**		**0/=**
7.08	**Extra for 150 x 150mm thick cement and sand (1:3) cornice**	**m**	**135**		**0/=**
	Ceiling Structure				
	Pressure impregnated sawn Cypress				
7.09	**50 x 100mm branderings**	**m**	**333**		**0/=**
7.10	**50 x 100mm joists**	**m**	**135**		**0/=**

	Painting				
	Prepare and apply three coats of first grade emulsion paint on:.				
7.11	**Plastered ceiling**	**m^2**	**118**		**0/=**
7.12	**Cornice : Over 100 but not exceeding 200mm girth.**	**m**	**135**		**0/=**
	Total Carried to Collection				**0/=**
	Earthquake				
	For Earthquake areas / Soils with poor bearing capacity price the following items in lieu of items 7.11 - 7.14.				
7.13	**6mm Thick internal quality plywood nailed to branderings.**	**m^2**			
7.14	**25 x 45mm Wrot Hardwood Cornice.**	**m**			
	Total Carried to Collection				
	COLLECTION				
	Page 4/16				**0/=**
	Page 4/17				**0/=**

	TOTAL INTERNAL FINISHES TO SUMMARY.				**0/=**
	ELEMENT NO. 8				
	FITTINGS AND FIXTURES				
	Curtain Boxes				
8.01	**Pelmet box comprising 150 x 25mm Fascia, 125 x 25mm top 150 x 125 x 25mm stopped ends jointed together, complete with and including I-section aluminium curtain rail with rollers**	**m**	**20**		**0/=**
	Prepare and apply three coats of polyurethane lacquer: on woodwork				
8.02	**General surfaces of pelmet boxes**	**m^2**	**13**		**0/=**
8.03	**Purpose made steel service hatch size 900 x 750mm high to detail**	**no**	**1**		**0/=**

	Concrete Bench Seats				
8.04	**75mm Thick reinforced concrete (1:2:4) slab finished smooth on exposed surfaces with 12mm cement and sand (1:3) screed.**	**m^2**	**3**		**0/=**
8.05	**Concrete (1:2:4) beam size 200 x 185mm deep reinforced with and including 4 No. Y12 steel bars, R8 links at 200mm centres and formwork.**	**m**	**8**		**0/=**
8.06	**Fabric mesh reinforcement ref. A98 laid in slab**	**m^2**	**3**		**0/=**
8.07	**Sawn formwork to soffite of slab**	**m^2**	**3**		**0/=**
8.08	**Ditto edge of slab 75mm high**	**m**	**7**		**0/=**
8.09	**25 x 200mm deep hardwood bench back screwed to wall with and including three coats clear varnish**	**m**	**5**		**0/=**
	Concrete wall shelving				
8.10	**75mm Thick reinforced concrete (1:2:4) slab finished smooth on exposed surfaces with 12mm cement and sand (1:3) screed.**	**m^2**	**12**		**0/=**
8.11	**Concrete (1:2:4) beam size 200 x 185mm deep reinforced with and including 4 No. Y12 steel bars, R8 links at 200mm centres and formwork.**	**m**	**24**		**0/=**
8.12	**Fabric mesh reinforcement ref. A98 laid in slab**	**m^2**	**12**		**0/=**
8.13	**Sawn formwork to soffite of slab**	**m^2**	**12**		**0/=**
8.14	**Ditto edge of slab 75mm high**	**m**	**24**		**0/=**
	Total Carried to Collection				**0/=**
	Concrete Work top				
8.15	**100mm concrete plinth**	**m^2**	**2**		**0/=**

8.16	**Concrete (1:2:4) beam size 200 x 185mm deep reinforced with and including 4 No. Y12 steel bars, R8 links at 200mm centres and formwork.**	**m**	**5**		**0/=**
8.17	**75mm Thick reinforced concrete (1:2:4) slab finished with 15mm terrazzo finish on exposed surfaces.**	**m^2**	**2**		**0/=**
8.18	**Fabric mesh reinforcement ref. A98 laid in slab**	**m^2**	**2**		**0/=**
8.19	**Wrot formwork to soffite of slab**	**m^2**	**2**		**0/=**
8.20	**Ditto edge of slab / plinth 75 - 150mm high**	**m**	**6**		**0/=**
8.21	**25mm thick blockboard door, shelf, back and base with hardwood lipping to exposed edges**	**m^2**	**15**		**0/=**
8.22	**25 x 25mm softwood bearer**	**m**	**6**		**0/=**
8.23	**50 x 50mm ditto**	**m**	**10**		**0/=**
8.24	**Approved cupboard lock**	**no**	**1**		**0/=**
8.25	**75mm steel butt hinges**	**prs**	**2**		**0/=**
8.26	**Approved ball catch**	**no**	**2**		**0/=**
8.27	**Ditto pull handles**	**no**	**2**		**0/=**
8.28	**Prepare and apply three coats gloss oil paint on wood surfaces.**	**m^2**	**15**		**0/=**
8.29	**Ditto to frame not exceeding 100mm girth.**	**m**	**9**		**0/=**
	Total Carried to Collection				**0/=**
	COLLECTION				
	Page 4/18				**0/=**
	Page 4/19				**0/=**

	TOTAL FITTINGS & FIXTURES TO SUMMARY.				**0/=**
	ELEMENT NO. 9				
	MECHANICAL INSTALLATION				
	Supply, install, connect and set to work the following, all as described in the Specifications and Drawings.				
	Sanitary Appliances				
9.01	**18 Gauge Stainless Steel Sink as ARMITAGE SHANKS htm64 STIRLING bi with right hand slop hopper, S6510 (531904Y) (DU-H), complete with 2No. 12mm Markwik bib taps S8270AA (806041DCP), 38mm plastic domed strainer waste S885067 (90568NOSC), 38mm plastic bottle trap S891567 (70238Q4SC), Clener high level 6 litre cistern and cover, S3955(1718AD) with freeflow plastic syphon fittings, internal overflow, chain and pull or equal approved.**	**no**	**1**		**0/=**
9.02	**1.2m x 0.6m Doon double bowl sink with tapholes and no overflows, in Stainless Steel (18 gauge), as ARMITAGE SHANKS, HTM64 DOON DOUBLE SINK, S5864 (533113U), complete with 2No. 12mm Markwik, lever operated , wall mounted mixer taps with horizontal spray outlets and concealed supplies, S8231 (801147X), 38mm plastic resealing bottle trap with removable sump S891567 (70238Q4SC) or equal approved.**	**no**	**1**		**0/=**
9.03	**60cm Acrylic Towel Rail with brackets, as ARMITAGE SHANKS MAYFAIR S5014 (20811TR) or equal approved**	**no**	**3**		**0/=**
	Assisted Bath Facility.				

9.04	**Glass fibre Assisted Shower with reinforced base and aluminium framing, with a right hand drain as ARMITAGE SHANKS SYNERGY 200 S6813 (00CP004), complete with lever operated concealed thermostatic shower valve S6857 (80444AG), 60cm hand rail S6896 (7788400), folding shower seat with legs S6850 (5847000WW) complete with all accessories**	**no**	**1**		**0/=**
	Total Carried to Collection				**0/=**
	ARMITAGE SHANKS DOC M STANDARD PACK for LEFT corner arrangement, consisting of the following as illustrated in the catalogue CI/SfB (74) Uniclass L721 June 2002, Page 17:3:1 :-				
9.05	**White Vitreous China Ventura BTW WC pan S3465 (149401A), Laminate faced spacer box unit with access panel S5375 (7774000), Panekta connectors that converts to turned S-trap S4300 (9014000), complete with 6 litre capacity cistern for side supply and internal overflow S3900 (17730AA), 2No. 60cm vertical grab rails and 1No. 60cm horizontal grab rail S6896 (7788400), 1No. 45cm pull rail for back of door S6894 (7788200), 1No. hinged support rail S6912 (7797100), 40cm x 25cm backrest rail S6888 (7780000), Cushioned back support withclips S6884 (7773100), 15cm x 15cm mayfair semi-recessed toilet roll holder S5004 (2053100) and all accessories**	**no**	**1**		

9.06	**White Vitreous China Wash hand basin with central tapholes as ARMITAGE SHANKS, VENTURA 37, S2785 (119615S) complete with 12mm pillar taps S7100 (6973400), 38mm plastic domed strainer waste S885067 (90568NOSC), 38mm plastic bottle trap S891567 (70238Q4SC) or equal approved with all accessories.**	**no**	**2**		**0/=**
9.07	**Polished mirror plate, beveled edge 300 x 450x6mm.**	**no**	**1**		**0/=**
	Water Supply to Appliances				
9.08	**25 mm class B cold water pipe,burried in the ground, burried in wall, clipped to wall, or in duct complete with all fittings and accessories.**	**m**	**8**		**0/=**
9.09	**20 mm class B cold water pipe,burried in the ground, burried in wall, clipped to wall, or in duct complete with all fittings and accessories.**	**m**	**6**		**0/=**
9.10	**12 mm class B cold water pipe, burried in wall, clipped to wall, or in duct, complete with all fittings and accessories.**	**m**	**15**		**0/=**
9.11	**12mm gate valves as Peglar heavy duty or equal approved.**	**no**	**2**		**0/=**
9.12	**20mm gate valves as Peglar heavy duty or equal approved.**	**no**	**1**		**0/=**
	Total Carried to Collection				**0/=**
9.13	**25mm gate valves as Peglar heavy duty or equal approved.**	**no**	**1**		**0/=**
9.14	**Flexible tubes (stainless steel braid on PVC) for connection of appliances, complete.**	**no**	**6**		**0/=**
	Water Supply				

9.15	**6000 litre stainless steel tank (as manufactured by MS. Steel and Tubes Industries (U) Limited, or other similar approved supplier) placed on Ground Concrete base, complete with all accessories.**	**no**	**1**		**0/=**
9.16	**25mm gate valves as Peglar heavy duty or equal approved.**	**no**	**1**		**0/=**
9.17	**12mm Stand pipe, complete with 12mm bib tap and all accessories**	**item**	**1**		**0/=**
9.18	**1.5m high Ground concrete water tank base, made in masonry brickwork, well compacted hardcore, with 150mm thick slab on top as shown in drawing, for the above water tank, complete.**	**no**	**1**		**0/=**
	Internal Drainage				
9.19	**38mm PVC heavy gauge pipes complete with bends and all accessories for WHBs, sinks, in floor , walls, up to manholes/Gully Trap .**	**m**	**20**		**0/=**
9.20	**50mm PVC heavy gauge pipes complete with bends and all accessories for Showers, in floor, walls, up to manholes/Gully Trap.**	**m**	**10**		**0/=**
9.21	**110mm PVC heavy gauge pipes complete with bends and all accessories for WCs, in floor, walls, up to manholes/Gully Trap.**	**m**	**10**		**0/=**
	External Drainage				
9.22	**110mm PVC heavy gauge pipe work buried in the ground to a fall of 1:60 complete with excavations, bedding, backfilling and all accessories.**	**m**	**50**		**0/=**
9.23	**Gully Trap (GT) complete with PVC trap, masonry construction 300x300mm, with steel cover and all accessories.**	**no**	**3**		**0/=**
9.24	**Manhole 450x600mm in masonry brickwork, rendered smooth inside complete with benching, heavy duty manhole cover made out of concrete and angles and all accessories.**	**no**	**4**		**0/=**

	Total Carried to Collection				**0/=**
9.25	**Septic Tank for 20 people; size approx. 2850 x 675 x 900mm in masonry brickwork, rendered smooth inside complete with inlet and outlet manholes benching, heavy duty manhole cover made out of concrete and angles and all accessories.**	**no**	**1**		**0/=**
9.26	**Soak Pit Size approx. 2500mm on top tappering to 1500mm and depth of 1500mm complete with hardcore and all accessories.**	**no**	**1**		**0/=**
	Total Carried to Collection				**0/=**
	COLLECTION				
	Page 4/20				**0/=**
	Page 4/21				**0/=**
	Page 4/22				**0/=**
	Page 4/23				**0/=**
	TOTAL MECHANICAL INSTALLATION TO SUMMARY.				**0/=**

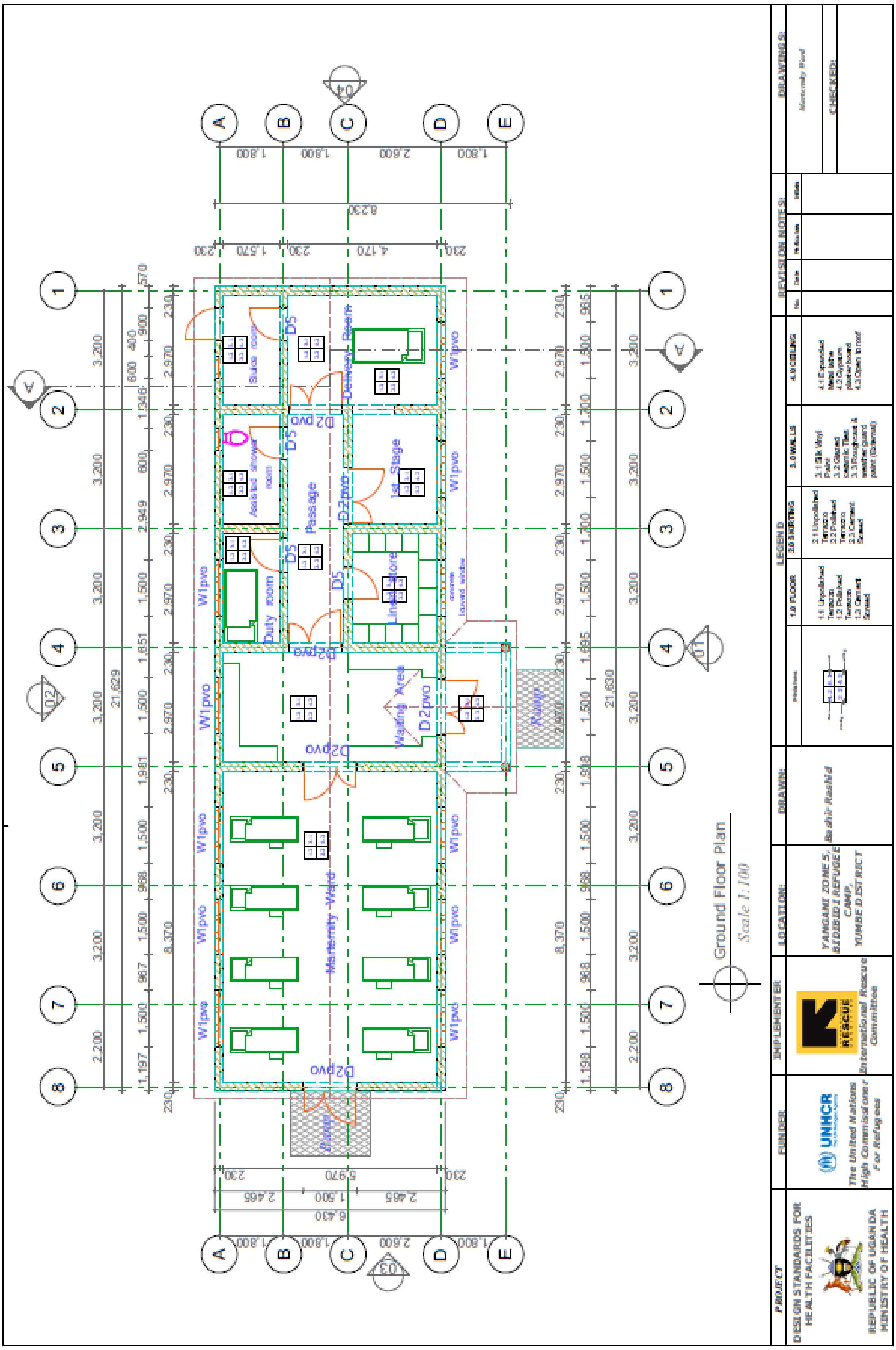
	ELEMENT NO. 10				
	ELECTRICAL INSTALLATION				
	Supply, install, connect and set to work the following, all as described in the Specifications and Drawings.				
	<u>Power Supply</u>				
10.01	**100A 9-Way SPN MCB Consumer Unit flush mounting complete with integral isolator, MCBs and all accessories as MEM, CRABTREE or equal approved.**	**no**			
10.02	**Supply Cable 25mm^2 x 3core PVC/SWA/PVC Copper cables in 25mm PVC concealed conduits complete with terminations clipping and all accessories from UEDCL meter to the consumer Unit above.**	**m**			
10.03	**Meter box to contain UEDCL meter and cutouts.**	**no**			
10.04	**Main Earth at adaptable box by 25mm^2 PVC copper cables to copper electrode in manhole complete with all accessories.**	**item**			

10.05	**Provisional Sum of UGShs. 1,000,000/= for supply and installation of a change-over switch, complete with all associated accessories: to enable a convinient shift from generator power supply to the installed solar power supply and vice-versa**	**item**	**1**		**0/=**
	Lighting				
10.06	**Lighting points wired by 1.5mm^2 twins with earth PVC-I copper cables in 20mm pvc conduits.**	**no**			
10.07	**1 x 36W 1200mm single bare batten fluorescent fitting complete with daylight tube switch start and all accessories as Thorn or equal approved.(F1 & F2)**	**no**			
10.08	**Cast Aluminium Bulkhead, for 100W BC GLS lamps, with glass bowl retained by tamper resistant fixings, IP65 protection, as Thorn OLG Cat. No. OLG 1100BC or equal approved (Source: Comprehensinve product catalogue 1999, Page 406) (Light F6).**	**No**			
10.09	**6A 1 gang 1 way moulded switch as MK or approved equal.**	**no**			
10.10	**6A 1 1gang 2 way moulded switch as MK or approved equal.**	**no**			
	Total Carried to Collection				**0/=**
	Sockets				
10.12	**Socket outlet point wired by 2.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits and all accessories.**	**no**			
10.13	**13A 2gang switched socket outlet as MK, in MK boxes complete with all accessories.**	**no**			
	Solar Power				
	Solar Power Supply and Lighting				

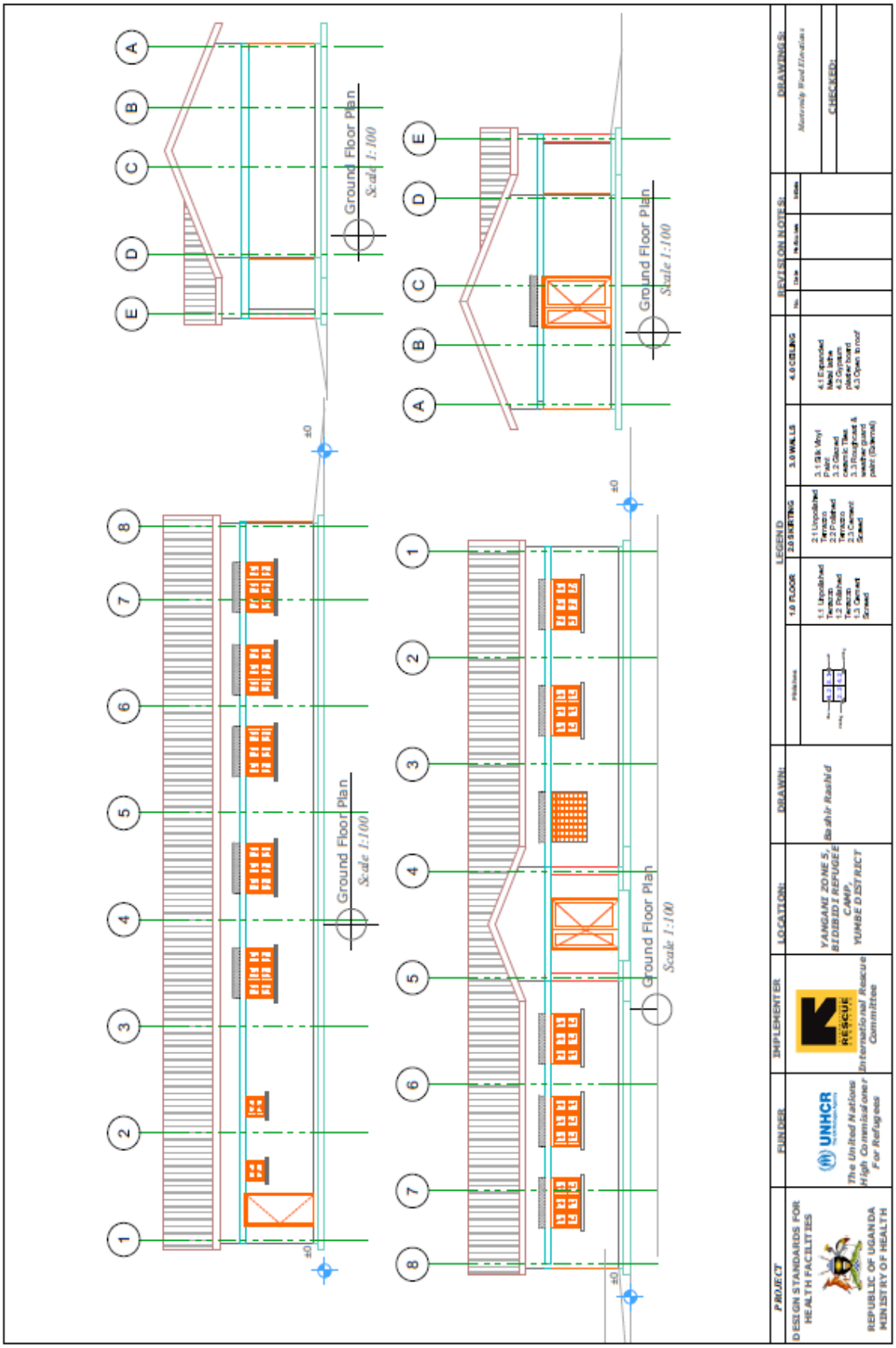
10.14	**Solar Panel, with Peak power of 120W, Max.Current of 4.5A, Max. Voltage of 17V DC, Short circuit current of 4.8A, Open circuit voltage of 21.4V DC, as SIEMENS SP75, BP SOLAR BP 275 or equal approved.**	**no**	**6**		**0/=**
10.15	**Galvanised steel supporting structure mounted above ground at an Optimum tilt angle to be determined by site location, complete with brackets and all accessories.**	**no**	**1**		**0/=**
10.16	**4Way SPN MCB Consumer Unit as MEM or equal approved.**	**no**	**1**		**0/=**
10.17	**Charge Regulator with System voltage 12V / 24V DC, Max Module and Load Current of 12A, Article No. B01.548 as by Steca GmbH Memmingen (Germany) or equal approved.**	**no**	**2**		**0/=**
10.18	**Inverter of Max. DC Power of 1960W, Max. Current of 14A DC / AC, Max Voltage at no load of 175V DC, as GRUDFOS (Germany) SA 1500 v03 or equal approved.**	**no**	**1**		**0/=**
10.19	**Deep Cycle Maintenance Free Solar Batteries, of 200AH, 12V / 24V, as DELCO 2000 by Steca GmbH Memmingen (Germany) or equal approved.**	**no**	**6**		**0/=**
10.20	**Battery cable with fuse and interconnecting cables to Consumer unit.**	**item**	**1**		**0/=**
10.21	**Earth installation by 25mm^2 PVC copper cables to copper electrode in manhole complete with all accessories.**	**item**	**1**		**0/=**
10.22	**Supply Cable 10mm^2 x 3core PVC/SWA/PVC Copper cables in 25mm PVC concealed conduits complete with terminations clipping and all accessories from battery battery bank to Solar Power Consumer Unit CU2.**	**m**	**15**		**0/=**
	Total Carried to Collection				**0/=**

10.23	**Lighting points wired by 1.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits complete with all accessories.**	**no**	**38**		**0/=**
10.24	**1 x 18W 600mm single bare batten fluorescent fitting complete with daylight tube switch start and all accessories as Thorn or equal approved(F2).**	**no**	**10**		**0/=**
10.25	**1 x 36W 1200mm single bare batten fluorescent fitting complete with daylight tube switch start and all accessories as Thorn or equal approved(F2).**	**no**	**26**		**0/=**
10.26	**1 gang 1 way 6A moulded switch as MK or approved equal.**	**no**	**24**		**0/=**
	Lightning Protection				
10.27	**Copper tape of Hard Drawn High conductivity copper plate 3mm x 25mm cross section for Down Conductors,bonded to the iron sheet roof complete with fixing clips and all accessories as by FURSE or equal.**	**m**	**20**		**0/=**
10.28	**Air terminals complete with Tape Adapter and all accessories as by FURSE or equal.**	**no**	**2**		**0/=**
10.29	**Test Blocks complete as by FURSE or equal.**	**no**	**2**		**0/=**
10.30	**Earth electrodes made from Hard drawn copper or copper weld 20mm diameter by 1200mm in two length screwed together complete with cap, earth clamp, manhole and all accessories.**	**no**	**2**		**0/=**
	Fire Fighting				
10.31	**9kg powder type wall mounted fire extinguisher as ANGUS or equal approved.**	**no**	**2**		**0/=**
	Total Carried to Collection				**0/=**
	COLLECTION				
	Page 4/24				**0/=**

	Page 4/25				**0/=**
	Page 4/26				**0/=**
	TOTAL ELECTRICAL INSTALLATION TO SUMMARY.				**0/=**



Ground Floor Plan
Scale 1:100
Maternity Ward
Waiting Area
Passage
Duty room
Sluice room
Delivery Room
1st Stage
Linen Store
Assisted shower room
Ramp
DRAWN:
Bashir Rashid
LOCATION:
YANGANI ZONE 5, BIDIBIDI REFUGEE CAMP, YUMBE DISTRICT
IMPLEMENTER
International Rescue Committee
FUNDER
UNHCR
The United Nations High Commissioner For Refugees
PROJECT
DESIGN STANDARDS FOR HEALTH FACILITIES
REPUBLIC OF UGANDA MINISTRY OF HEALTH
DRAWINGS:
CHECKED:
REVISION NOTES:
LEGEND



Section VII : Health Centre III : General Ward : Bills of Quantities

Item	**Description**	**Unit**	**Qty**	**Rate**	**Amount**
				Ushs	**Ushs**
	HEALTH CENTRE III				
	BILL NO. 3 : GENERAL WARD				
	SUMMARY				
1	**SUBSTRUCTURE**				
2	**ROOF**				
3	**EXTERNAL WALLS**				
4	**WINDOWS & EXTERNAL DOORS**				
5	**INTERNAL WALLS & PARTITIONS**				
6	**INTERNAL DOORS**				
	INTERNAL FINISHINGS				

7					
8	**FITTINGS & FURNISHINGS**				
9	**MECHANICAL INSTALLATION**				
10	**ELECTRICAL INSTALLATION**				
	TOTAL GENERAL WARD TO GENERAL SUMMARY				
	ELEMENT NO 1				
	SUBSTRUCTURE				
	(All Provisional)				
	Note Items 1.24 to 1.37 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				
	Site Preparation				
1.01	**Excavate oversite to remove top soil average 250mm thick and remove from site.**	**m^2**	**660**		
					0/=
1.02	**Treat surface of subsoil or fillings and surroundings with approved chemical anti-termite solution: provide ten year guarantee.**	**m^2**	**660**		
					0/=
	Excavation and Earthworks.				**0/=**

	Note: Rates for excavation to include for keeping excavations free from water and planking and strutting to sides of excavations				**0/=**
					0/=
1.03	**Excavate to reduce levels and remove from site.**	**m^3**	**330**		
					0/=
1.04	**Excavate trenches for wall foundations: commencing from reduced levels : not exceeding 1.5m deep .**	**m^3**	**155**		
					0/=
1.05	**Extra over excavation for excavating in rock**	**m^3**	**4**		
					0/=
	Disposal of excavated material				**0/=**
					0/=
1.06	**Selected excavated material in filling to foundation trenches : around walling : placed in 200mm layers : watered and compacted to 95% MDD**	**m^3**	**95**		
					0/=
1.07	**Remove surplus excavated material from site**	**m^3**	**60**		
					0/=
	Hardcore				**0/=**
					0/=
1.08	**150mm Filling : deposit, spread, level and compact : 25mm selected quarry dust blinding.**	**m^2**	**72**		
					0/=
	Insitu concrete grade 20 / 20mm aggregate as described.				**0/=**
					0/=
1.09	**Foundations in trenches**	**m^3**	**21**		
					0/=
1.10	**100mm thick ground floor slab tamped to fabric reinforcement.**	**m^2**	**246**		
	Total Carried to Collection				
	Reinforcement				

1.11	**Mesh reinforcement Ref No. A98 size 200 x 200 mm weighing 1.54 kg per square metre: in floor slab: including all necessary supports**	**m^2**	**246**		
					0/=
	Sawn formwork as described to:				**0/=**
					0/=
1.12	**Vertical edges of surface bed : over 75mm but not exceeding 150 mm high.**	**m**	**90**		
					0/=
	Brickwork in burnt clay bricks in cement and sand mortar (1:3) mix, , with 25 x 3mm hoop iron strips laid horizontally every alternate course.				**0/=**
					0/=
1.13	**230 mm thick walling.**	**m^2**	**196**		
					0/=
	Sundries				**0/=**
					0/=
1.14	**One layer 1000 gauge polythene sheet damp proof membrane : Under bed : 300mm laps.**	**m^2**	**246**		
					0/=
	Damp proof courses : hessian based bituminous felt: bedded in cement and sand (1:4) mortar : 300mm laps.				**0/=**
					0/=
1.15	**Horizontal : 230mm ditto**	**m**	**200**		
					0/=
	Plinth wall, ramp and splash apron				**0/=**
					0/=
1.16	**50mm Thick bed of sand on compacted ground.**	**m^2**	**65**		
					0/=
1.17	**15mm Thick cement and sand plaster to plinth walls with wood float finish.**	**m^2**	**45**		
					0/=
1.18	**125mm (average) thick concrete class 25/18mm aggregate ramp reinforced with and including formwork and fabric mesh reinforcement ref A98 as before described**	**m^2**	**9**		
					0/=
	Ditto but 50mm thick concrete splash	**m^2**			

1.19	**apron ditto**		**65**		
					0/=
1.20	**Ditto concrete ramp beam size 60 x 80mm deep with and including necessary excavations, formwork and disposal of surplus soil.**	**m**	**12**		
					0/=
1.21	**Ditto splash apron beam size 100 x 150mm deep ditto**	**m**	**92**		
					0/=
1.22	**38mm thick cement and sand (1:3) paving on splash apron wood float finish**	**m^2**	**65**		
					0/=
1.23	**Prepare and apply three coats of black bituminous paint to plastered surfaces.**	**m^2**	**45**		
	Total Carried to Collection				
	<u>Earthquake areas / Soils with poor bearing capacity.</u>				
	Note: Rates for excavation to include for keeping excavations free from water and planking and strutting to sides of excavations				
1.24	**Excavate trenches for wall foundations: commencing from reduced levels : not exceeding 1.5m deep .**	**m^3**	**155**		
1.25	**Selected excavated material in filling to foundation trenches as before described.**	**m^3**	**100**		
1.26	**Remove surplus excavated material from site**	**m^3**	**55**		
	Brickwork in burnt clay bricks in cement and sand mortar (1:3) mix;with and including 25 x 3mm hoop iron strips laid horizontally every alternate course.				
1.27	**230 mm thick walling.**	**m^2**	**160**		
	Insitu concrete grade 10 / 20mmaggregate as described.				

1.28	**50mm thick blinding to foundations and column bases**	**m^2**	**77**		
	Insitu concrete grade 20 / 20mm aggregate as described.				
1.29	**Foundations in trenches**	**m^3**	**6**		
	Insitu concrete grade 25 / 20mm vibrated reinforced as described.				
1.30	**Foundations in trenches**	**m^3**	**15**		
1.31	**Column Bases**	**m^3**	**1**		
1.32	**Columns**	**m^3**	**1**		
	Mild steel rod reinforcement as described.				
1.33	**8 mm diameter bar**	**kg**	**160**		
	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
1.34	**12 mm diameter bar**	**kg**	**210**		
	Total Carried to Collection				
	Sawn formwork as described to				
1.35	**Sides of Column bases**	**m^2**	**7**		
1.36	**Sides of Columns**	**m^2**	**14**		

1.37	**Sides of Strip foundations**	**m^2**	**48**		
	Total Carried to Collection				
	COLLECTION				
	.				
	Page 3/2				
	Page 3/3				
	Page 3/4				
	Page 3/5				
	TOTAL SUBSTRUCTURE TO SUMMARY				

	ELEMENT NO. 2				
	ROOF				
	Note Items 2.20 to 2.23 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				
	Insitu concrete grade 25 / 20mm: Vibrated, reinforced as described				
2.01	**Ring beams**	**m^3**	**5**		
					0/=
	Mild steel reinforcement as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				**0/=**
					0/=
2.02	**8 mm diameter bar**	**kg**	**220**		
					0/=
	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				**0/=**
					0/=
2.03	**12 mm diameter bar**	**kg**	**450**		
					0/=
	Sawn formwork as described to:				**0/=**
					0/=
2.04	**Sides and soffites of beams**	**m^2**	**71**		
					0/=
	Brickwork in burnt clay bricks in cement and sand mortar (1:3) mix;with and including 25 x 3mm hoop iron strips laid horizontally every alternate course.				**0/=**

					0/=
2.05	**230mm Thick gable walling**	**m^2**	**15**		
					0/=
	Finishes				**0/=**
					0/=
	Cement and sand (1:4) render on concrete or masonry				**0/=**
					0/=
2.06	**15mm to walls**	**m^2**	**15**		
					0/=
	Two coats tyrolene rendering on masonry				**0/=**
					0/=
2.07	**Walls and concrete surfaces**	**m^2**	**15**		
	Total Carried to Collection				
	Roof Construction				
	The following in roof construction including all bolting, gusset plates, fixing trusses to ring beams with holding down bolts and hoisting and fixing approximately 3.0mm above ground level.				
	Sawn cypress pressure impregnated with preservative:-				
	7 No. Trusses span 8200mm x 1800mm rise				
2.08	**50 x 100mm Purlins**	**m**	**400**		
					0/=
2.09	**50 x 100mm Strut /tie**	**m**	**105**		
					0/=
	50 x 150mm Ridge	**m**			

2.10			**40**		
					0/=
2.11	**50 x 150mm Tie beam**	**m**	**120**		
					0/=
2.12	**50 x 150mm Rafters**	**m**	**160**		
					0/=
2.13	**75 x 100mm Beam**	**m**	**26**		
					0/=
2.14	**75 x 100mm Wall Plate**	**m**	**76**		
					0/=
	Roof Covering				**0/=**
					0/=
2.15	**26 Gauge pre-painted iron roofing sheets fixed with $1^1/_2$ side corrugation laps and 150mm end laps with and including approved roofing nails or galvanized steel drive screws with plastic washers to manufacturer's instructions.**	**m^2**	**350**		
					0/=
2.16	**26 Gauge plain (pre-coated) roll top ridge capping.**	**m**	**40**		
					0/=
2.17	**Ditto vallet piece 1000mm girth**	**m**	**13**		
					0/=
	Eaves				**0/=**
					0/=
2.18	**25 x 225mm Wrot Cypress fascia board**	**m**	**100**		
					0/=
	Painting				**0/=**
	Knot prime stop and apply three coats of gloss oil paint to timber surfaces.				**0/=**
					0/=
2.19	**Knot, prime, stop and apply three coats of gloss oil paint to wood fascia 200-300mm girth.**	**m**	**100**		
					0/=
	Roof Vents.				**0/=**
					0/=
2.20	**Roof Vents size 230 x 460mm high filled with Kajjansi ventilation bricks and bat proof netting complete with all necessary**	**no**	**3**		

	timber framing.				
	Total Carried to Collection				
	Earthquake areas / Soils with poor bearing capacity.				
	Insitu concrete grade 25 / 20mm: Vibrated, reinforced as described				
2.21	**Ring beams**	**m^3**	**5**		
	Mild steel reinforcement as described.				
2.22	**8 mm diameter bar**	**kg**	**220**		
	High yield tensile steel bar reinforcement to BS 4449 as described.				
2.23	**12 mm diameter bar**	**kg**	**450**		
	Sawn formwork as described to:				
2.24	**Sides and soffites of beams**	**m^2**	**71**		
	Total Carried to Collection				
	COLLECTION				
	.				
	.				
	Page 3/5				

	Page 3/6				
	Page 3/7				
	TOTAL ROOF CARRIED TO SUMMARY				
	ELEMENT NO. 3				
	EXTERNAL WALLS				
	Note Items 3.06 to 3.09 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				
	Brickwork in burnt clay bricks in cement and sand mortar (1:3) mix; with and including 25 x 3mm hoop iron strips laid horizontally every alternate course.				
3.01	**230mm thick walling.**	**m^2**	**92**		
	Permanent Vents				
3.02	**Permanent Vent filled in with Kajjansi ventilation bricks or other equal and approved; bat proof gauze and coffee tray wire backing complete with necessary timber framing and beading.**	**m^2**	**10**		

	Finishes				
	Cement and sand (1:4) render trowelled smooth on concrete or masonry				
3.03	**15mm to walls.**	**m^2**	**225**		
	Two coats tyrolene rendering on masonry				
3.04	**Walls and concrete surfaces**	**m^2**	**205**		
	Painting : 'Sadolin Paints' or equal and approved.				
3.05	**Prepare and apply one undercoat and two finishing coats matt vinyl paint on plastered surfaces.**	**m^2**	**20**		
	Earthquake areas / Soils with poor bearing capacity.				
	Insitu concrete grade 25 / 20mm aggregate : vibrated reinforced.				
3.06	**Columns**	**m^3**	**2**		
	Reinforcement				
	Mild steel rod reinforcement as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
3.07	**8 mm diameter bar**	**kg**	**75**		
	Total Carried to Collection				
	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				

3.08	**12 mm diameter bar**	**kg**	**150**		
	Sawn formwork as described to				
3.09	**Sides of Column**	**m^2**	**27**		
	Total Carried to Collection				
	COLLECTION				
	Page 3/9				
	Page 3/10				
	TOTAL EXTERNAL WALLS TO SUMMARY				

	ELEMENT NO. 4				
	WINDOWS & EXTERNAL DOORS				
	Concrete Work				
	Precast concrete grade 25 / 20mm lintel reinforced with 4No. 12 mm high tensile steel bars and 8mm steel stirrups at 200 mm centres and including all necessary formwork and hoisting and fixing in position.				
4.01	**150 x 230 mm high**	**m**	**5**		
					0/=
	Precast concrete grade 25 / 20mm aggregate : units reinforced as necessary and finished fair face on all exposed sides.				**0/=**
					0/=
4.02	**75 x 285 mm sunk weathered and throated window cill**	**m**	**40**		
					0/=
	Purpose made steel casement windows manufactured from standard W20 sections: manufacture, assemble and deliver to site : Supply and fix ironmongery comprising approved hinges, pivoting mechanisms, stays, fasteners to opening lights: plugged and screwed or built into walling : one coat red oxide primer before delivery.				**0/=**
					0/=
4.03	**Window type W2 : Size 1500 x 700mm overall height: 1No. top hung opening lights size 600 x 300mm high: fixed bottom light size 600 x 300mm high.**	**no**	**2**		
					0/=

4.04	**Window type W1 : Size 1500 x 1200mm overall height: 2No. side hung opening lights size 500 x 1200mm high : 1 No. fixed middle light size 500 x 1200mm high.**	**no**	**20**		
					0/=
	Burglar proofing grille comprising 12mm square bars 150mm centres both ways in cobweb pattern or other equal and approved pattern welded to 50 x 50 x 6mm angle the whole having one coat of red oxide primer to fit the following window sizes.				**0/=**
					0/=
4.05	**Window type W4 : Size 600 x 600mm overall height**	**no**	**2**		
					0/=
4.06	**Window type W1 : Size 1500 x 1200mm overall height.**	**no**	**20**		
	Total Carried to Collection				
	Purpose made steel casement doors manufactured from Standard W20 Sections: manufacture, assemble and deliver to Site: Supply and fix approved hinges: plugged and screwed or built into walling: one coat red oxide primer before delivery.				
4.07	**Door type D1 size 1500 x 2400mm high : two unequal opening leaves one 900 x 2400mm high and the other 600 x 2400mm.**	**no**	**3**		
					0/=
	Wrot Mahogany : Selected and kept Clean				**0/=**
					0/=
4.08	**25 x 50mm Architrave: two labours**	**m**	**10**		
					0/=
4.09	**50 x 150mm Door Frame: two labours: plugged.**	**m**	**5**		
					0/=
	Ironmongery				**0/=**
					0/=

	Supply and fix the following ironmongery of "UNION" Manufacture and to Architects approval complete with matching fixings to hardwood or steel				**0/=**
					0/=
4.10	**Butt Hinges, 75 x 100mm : finished stainless steel.**	**prs**	**2**		
					0/=
4.12	**25mm Rubber door stop plugged to wall or floor.**	**no**	**7**		
					0/=
4.13	**3 Lever Mortice Lock complete with lever furniture**	**no**	**1**		
					0/=
4.14	**3 Lever Steel door lock complete with lever furniture**	**no**	**3**		
					0/=
	Glass and Glazing				**0/=**
					0/=
4.15	**4mm thick clear sheet glass to metal window with putty**	**m^2**	**48**		
					0/=
4.16	**Ditto but obscure glass**	**m^2**	**1**		
					0/=
	Painting				**0/=**
					0/=
	Prepare touch up primer and apply one undercoat and two finishing coats of gloss oil paint : on metalwork.				**0/=**
					0/=
4.17	**Glazed metal surfaces**	**m^2**	**99**		
					0/=
4.18	**Burglar proofing grilles**	**m^2**	**74**		
	Total Carried to Collection				
	Painting				

	Prepare Knot, Prime, stop and apply three coats of gloss oil paint : on woodwork				
4.19	**General Surfaces : doors**	**m^2**	**4**		
					0/=
4.20	**Ditto: over 200 but not exceeding 300mm girth**	**m**	**5**		
					0/=
4.21	**Ditto not exceeding 100mm girth**	**m**	**10**		
					0/=
4.22	**Prime back of frame before fixing**	**m**	**5**		
					0/=
					0/=
	Total Carried to Collection				
	.				
	COLLECTION				
	.				
	.				
	.				
	Page 3/11				
	Page 3/12				
	Page 3/13				
	TOTAL WINDOWS & EXTERNAL DOORS TO SUMMARY				

	ELEMENT NO. 5				
	INTERNAL WALLS & PARTITIONS				
	Note Items 5.02 to 5.05 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				
	Brickwork in burnt clay bricks in cement and sand mortar (1:3) mix; with and including 25 x 3mm hoop iron strips laid horizontally every alternate course.				
5.01	**200mm Thick walling.**	**m^2**	**145**		
	Earthquake areas / Soils with poor bearing capacity.				
	.				
	Insitu concrete grade 25 / 20mm aggregate : vibrated reinforced.				
5.02	**Columns**	**m^3**	**1**		
	Mild steel rod reinforcement as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
5.03	**8 mm diameter bar**	**kg**	**30**		

	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
5.04	**12 mm diameter bar**	**kg**	**100**		
	Sawn formwork as described to				
5.05	**Sides of Column**	**m^2**	**4**		
	TOTAL INTERNAL WALLS & PARTITIONS TO SUMMARY				
	ELEMENT NO. 6				
	INTERNAL DOORS				
	Concrete Work				
	Precast concrete grade 25 / 20mm lintel reinforced with 4No. 12 mm high tensile steel bars and 8mm steel stirrups at 200 mm centres and including all necessary formwork and hoisting and fixing in position.				
6.01	**200 x 200 mm high**	**m**	**15**		**0/=**
					0/=

	Solid core flush doors: 6mm thick internal quality plywood facing both sides: hardwood lipping to all edges.				**0/=**
					0/=
6.02	**45mm Door size 850 x 2075mm high (D4pvo).**	**no**	**1**		**0/=**
					0/=
6.03	**Ditto size 1450 x 2075mm high : two unequal opening leaves one 850 x 2075mm high and the other 600 x 2075mm high : each leaf with openings for vision panel 300 x 400mm high (D2pvo)**	**no**	**5**		**0/=**
					0/=
	Wrot Mahogany : Selected and kept Clean				**0/=**
					0/=
6.04	**25 x 50mm Architrave: two labours**	**m**	**20**		
6.05	**50 x 175mm Door frame: two labours**	**m**	**10**		
6.06	**50 x 175mm Transome : two labours**	**m**	**1**		
6.07	**12mm x 100mm louvres set and including forming grooves**	**m**	**20**		
	Supply and fix the following ironmongery of "UNION" Manufacture as described.				
6.08	**Butt Hinges, 75 x 100mm : finished stainless steel.**	**prs**	**6**		
6.09	**180 degrees double swing stainless steel hinges.**	**prs**	**10**		
6.10	**25mm Rubber door stop plugged to wall or floor.**	**no**	**14**		
6.11	**3 Lever Mortice Lock complete with lever furniture**	**no**	**4**		
6.12	**Ditto rebated ditto**	**no**	**5**		
	150 x 300mm Aluminuim push plate	**no**			

6.13			**20**		
	Glass and Glazing				
6.14	**6mm Thick x 200 x 300mm high clear sheet glass vision panel fixed with and including 19 x 25mm timber beading.**	**no**	**10**		
	Total Carried to Collection				
	Prepare Knot, Prime, stop and apply three coats of gloss oil paint : on woodwork				
6.15	**General Surfaces : doors**	**m^2**	**39**		
6.16	**Ditto: over 200 but not exceeding 300mm girth**	**m**	**59**		
6.17	**Ditto not exceeding 100mm girth**	**m**	**182**		
6.18	**Prime back of frame before fixing**	**m**	**51**		
	Total Carried to Collection				
	COLLECTION				
	Page 3/15				
	Page 3/16				
	TOTAL INTERNAL DOORS TO				

	SUMMARY				
	ELEMENT NO. 7				
	INTERNAL FINISHES				
	Floor Finishes				
	Cement and sand (1:4) screeds and pavings : one coat: steel trowell finish : laid on concrete				
7.01	**40mm thick paving.**	**m^2**	**212**		
7.02	**125 x 125mm coved skirting**	**m**	**141**		
	Wall Finishes				
7.03	**15mm thick to cement and sand plaster, steel trowell finish to walls.**	**m^2**	**429**		

	Painting : 'Sadolin Paints' or equal and approved.				
7.04	**Prepare and apply one undercoat and two finishings coats of matt vinyl paint to plastered surfaces.**	**m^2**	**429**		
	Ceiling Finishes				
7.05	**9 x 24 SWG galvanized expanded metal lathing U-nailed to timber branderings**	**m^2**	**212**		
7.06	**Cement and sand (1:4) pricking course to metal lathing**	**m^2**	**212**		
7.07	**12mm cement and sand plaster to ceiling**	**m^2**	**212**		
7.08	**Extra for 150 x 150mm thick cement and sand (1:3) cornice**	**m**	**180**		
	Ceiling Structure				
	Pressure impregnated sawn Cypress				
	50 x 50mm branderings	**m**	**420**		
	50 x 100mm joists	**m**	**530**		
	Painting				
	Prepare and apply three coats of first grade emulsion paint on:.				
	Plastered ceiling	**m^2**	**212**		
	Cornice : Over 100 but not exceeding 200mm girth.	**m**	**180**		
	Total Carried to Collection				
	Earthquake Areas				

	For Earthquake areas / Soils with poor bearing capacity price the following items in lieu of items 7.11 - 7.14.				
	6mm Thick internal quality plywood nailed to branderings.	**m^2**	**212**		
	25 x 45mm Wrot Hardwood Cornice.	**m**	**180**		
	Total Carried to Collection				
	COLLECTION				
	Page 3/17				
	Page 3/18				
	TOTAL INTERNAL FINISHES TO SUMMARY.				

	ELEMENT NO. 8				
	FITTINGS AND FIXTURES				
	Curtain Boxes				
8.01	**Pelmet box comprising 150 x 25mm Fascia, 125 x 25mm top 150 x 125 x 25mm stopped ends jointed together, complete with and including I-section aluminium curtain rail with rollers**	**m**	**40**		
	Prepare and apply three coats of polyurethane lacquer: on woodwork				
8.02	**General surfaces of pelmet boxes**	**m^2**	**26**		
	Concrete Bench Seats				
8.03	**75mm Thick reinforced concrete (1:2:4) slab finished smooth on exposed surfaces with 12mm cement and sand (1:3) screed.**	**m^2**	**6**		
8.04	**Concrete (1:2:4) beam size 200 x 185mm deep reinforced with and including 4 No. Y12 steel bars, R8 links at 200mm centres and formwork.**	**m**	**14**		
8.05	**Fabric mesh reinforcement ref. A98 laid in slab**	**m^2**	**6**		
8.06	**Sawn formwork to soffite of slab**	**m^2**	**6**		

8.07	**Ditto edge of slab 75mm high**	**m**	**14**		
8.08	**25 x 200mm deep hardwood bench back screwed to wall with and including three coats clear varnish**	**m**	**14**		
	Concrete wall shelving				
8.09	**75mm Thick reinforced concrete (1:2:4) slab finished smooth on exposed surfaces with 12mm cement and sand (1:3) screed.**	**m^2**	**8**		
8.10	**Concrete (1:2:4) beam size 200 x 185mm deep reinforced with and including 4 No. Y12 steel bars, R8 links at 200mm centres and formwork.**	**m**	**4**		
8.11	**Fabric mesh reinforcement ref. A98 laid in slab**	**m^2**	**8**		
8.12	**Sawn formwork to soffite of slab**	**m^2**	**8**		
8.13	**Ditto edge of slab 75mm high**	**m**	**8**		
	Concrete Work top				
8.14	**100mm concrete grade 10 / 20mm aggregate : plinth**	**m^2**	**8**		
	Total Carried to Collection				
8.15	**Concrete (1:2:4) beam size 200 x 185mm deep reinforced with and including 4 No. Y12 steel bars, R8 links at 200mm centres and formwork.**	**m**	**20**		
8.16	**75mm Thick reinforced concrete (1:2:4) slab finished with 15mm terrazzo finish on exposed surfaces.**	**m^2**	**8**		
8.17	**Fabric mesh reinforcement ref. A98 laid in slab**	**m^2**	**8**		

8.18	**Wrot formwork to soffite of slab**	**m^2**	**8**		
8.19	**Ditto edge of slab / plinth 75 - 150mm high**	**m**	**28**		
8.20	**25mm thick blockboard door, shelf, back and base with hardwood lipping to exposed edges**	**m^2**	**50**		
8.21	**25 x 25mm softwood bearer**	**m**	**24**		
8.22	**50 x 50mm ditto**	**m**	**46**		
8.23	**Approved cupboard lock**	**no**	**5**		
8.24	**75mm steel butt hinges**	**prs**	**5**		
8.25	**Approved ball catch**	**no**	**10**		
8.26	**Ditto pull handles**	**no**	**5**		
8.27	**Prepare and apply three coats gloss oil paint on wood surfaces.**	**m^2**	**68**		
8.28	**Ditto to frame not exceeding 100mm girth.**	**m**	**70**		
	Total Carried to Collection				
	COLLECTION				
	Page 3/19				

	Page 3/20				
	TOTAL FITTINGS & FIXTURES TO SUMMARY.				
	ELEMENT NO. 9				
	MECHANICAL INSTALLATION				
	Supply, install, connect and set to work the following, all as described in the Specifications and Drawings.				
	Sanitary Appliances				
9.01	**18 Gauge Stainless Steel Sink as ARMITAGE SHANKS htm64 STIRLING bi with right hand slop hopper, S6510 (531904Y) (DU-H), complete with 2No. 12mm Markwik bib taps S8270AA (806041DCP), 38mm plastic domed strainer waste S885067 (90568NOSC), 38mm plastic bottle trap S891567 (70238Q4SC), Clener high level 6 litre cistern and cover, S3955 (1718AD) with freeflo plastic syphon fittings, internal overflow, chain and pull or equal approved.**	**no**	**1**		
9.02	**18 Gauge Stainless Steel Doon double bowl sink as ARMITAGE SHANKS, HTM64 DOON DOUBLE SINK, S5864 (533113U), with tapholes and no overflows, complete with 2No. 12mm Markwik, lever operated , wall mounted mixer taps with horizontal spray outlets and concealed supplies, S8231 (801147X), 38mm plastic resealing bottle trap with removable sump S891567 (70238Q4SC) or equal approved.**	**no**	**1**		

9.03	**White Vitreous China WC pan with bottom outlet as ARMITAGE SHANKS, TIFFANY CC C60 S3090 (154702Y), complete with low level 6.0 litre cistern with internal flow S3900 (17730AA), Saturn seat and cover S4040 (68980B1), Plastic outlet connector S4325 (90190T8), and all accessories.**	**no**	**1**		
9.04	**White Vitreous China HTM64 S2262(117933U) as ARMITAGE SHANKS Portman general purpose medium wash hand basin, 50cm x 42cm, with 2 tapholes, no overflow, no chainstay.S7195(6624400) nose pillar taps complete with bead chain S8715(70017N6) unslotted tail, screw stay,S8920(7360700) 33mm plastic bottle trap with seal, S8975 (7356700) plastic extension to wall and wall flange straight outlet, S9150(7900000) concealed bracket with fixing clamps complete with centre bracket in alminium alloy or equal approved.**	**no**	**1**		
9.05	**Power shower kit with handspray,1350mm long hose, slide bar with grey tinted soap dish and chrome plated wall connection c/w control valve as Armitage shanks trevi power shower kit E4205AA.**	**no**	**-**		**0/=**
9.06	**60cm Acrylic Towel Rail with brackets, as ARMITAGE SHANKS MAYFAIR S5014 (20811TR) or equal approved**	**no**	**3**		
	Total Carried to Collection				
9.07	**Screw to wall Semi-recessed toilet roll holder 15cm x 15cm as ARMITAGE SHANKS, MAYFAIR RECESSED S5004 (2053100) or equal approved**	**no**	**1**		
9.08	**Polished mirror plate, beveled edge 300 x 450x6mm.**	**no**	**1**		
	Water Supply to Appliances				
9.09	**25 mm class B cold water pipe,burried in the ground, burried in wall, clipped to wall, or in duct complete with all fittings and accessories.**	**m**	**10**		

9.10	**20 mm class B cold water pipe,burried in the ground, burried in wall, clipped to wall, or in duct complete with all fittings and accessories.**	**m**	**20**		
9.11	**12 mm class B cold water pipe, burried in wall, clipped to wall, or in duct, complete with all fittings and accessories.**	**m**	**25**		
9.12	**12mm gate valves as Peglar heavy duty or equal approved.**	**no**	**2**		
9.13	**20mm gate valves as Peglar heavy duty or equal approved.**	**no**	**2**		
9.14	**25mm gate valves as Peglar heavy duty or equal approved.**	**no**	**1**		
9.15	**Flexible tubes (stainless steel braid on PVC) for connection of appliances, complete.**	**no**	**6**		
	Water Supply				
9.16	**6,000 litre pvc tank placed on ground concrete base (measured separetely), complete with all accessories.**	**no**	**1**		
9.17	**25mm gate valves as Peglar heavy duty or equal approved.**	**no**	**1**		
9.18	**12mm Stand by pipe, complete with 12mm gate valve, tap and all accessories**	**Item**	**1**		
9.19	**1.5m high Ground concrete water tank base, made in masonry brickwork, well compacted hardcore, with 150mm thick slab on top as shown in drawing, for the above water tank, complete.**	**no**	**1**		

	Total Carried to Collection				
	Internal Drainage				
9.20	**38mm PVC heavy gauge pipes complete with bends and all accessories for WHBs, sinks, in floor, walls, up to manholes/Gully Trap .**	**m**	**20**		
9.21	**50mm PVC heavy gauge pipes complete with bends and all accessories for Showers, in floor, walls, up to manholes/Gully Trap.**	**m**	**10**		
9.22	**110mm PVC heavy gauge pipes complete with bends and all accessories for WCs, in floor, walls, up to manholes/Gully Trap.**	**m**	**10**		
	External Drainage				
9.23	**110mm PVC heavy gauge pipework burried in the ground to a fall of 1:60 complete with excavations, bedding, backfilling and all accessories.**	**m**	**50**		
9.24	**Gully Trap (GT) complete with PVC trap, masonry construction 300x300mm, with steel cover and all accessories.**	**no**	**3**		
9.25	**Manhole 450 x 600mm in masonry brickwork, rendered smooth inside complete with benching, heavy duty manhole cover made out of concrete and angles and all accessories.**	**no**	**4**		
9.26	**Septic Tank for 20 people size approx. 2850 x 675 x 900mm in masonry brickwork, rendered smooth inside complete with inlet and outlet manholes benching, heavy duty manhole cover made out of concrete and angles and all accessories.**	**no**	**1**		
9.27	**Soak Pit Size approx. 2500mm on top tappering to 1500mm and depth of 1500mm complete with hardcore and all accessories.**	**no**	**1**		

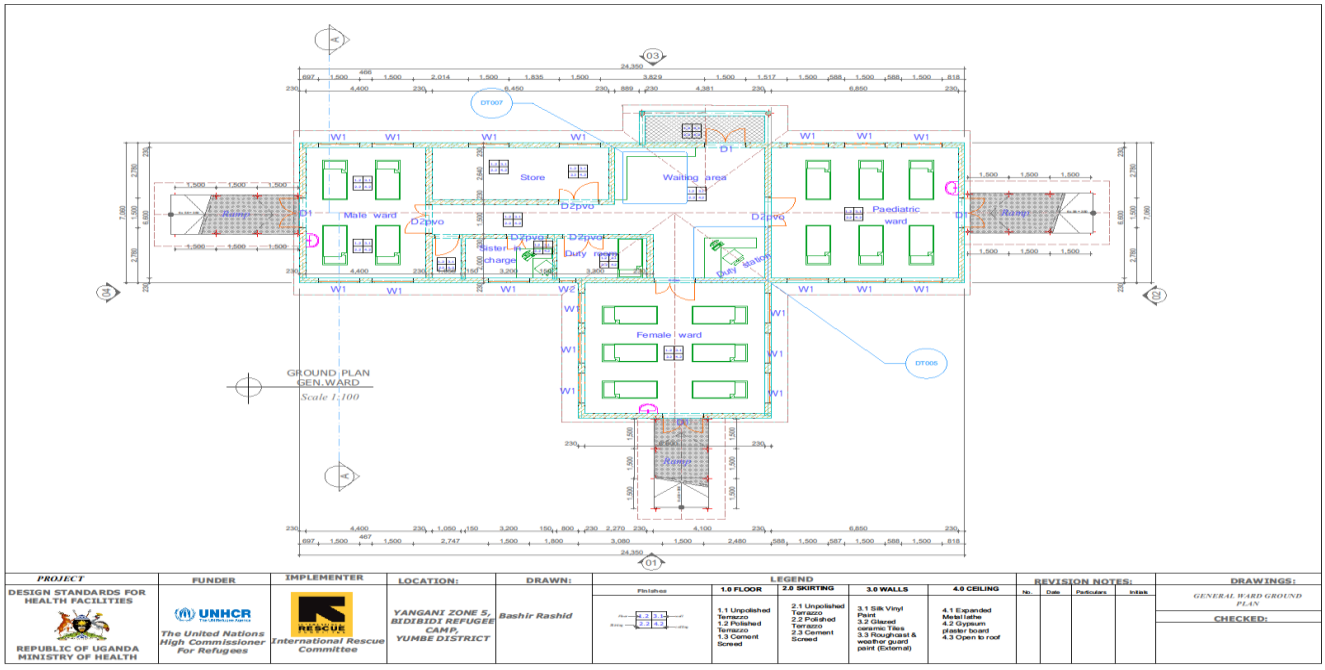
	Total Carried to Collection				
	COLLECTION				
	Page 3/21				
	Page 3/22				
	Page 3/23				
	TOTAL MECHANICAL INSTALLATION TO SUMMARY				
	ELEMENT NO. 10				
	ELECTRICAL INSTALLATION				
	Supply, install, connect and set to work the following, all as described in the Specifications and Drawings.				
	Power Supply				
10.01	**100A 9-Way SPN MCB Consumer Unit flush mounting complete with integral isolator, MCBs and all accessories as MEM, CRABTREE or equal approved.**	**no**	**1**		
					0/=
10.02	**Supply Cable 16mm^2 x 3core PVC/SWA/PVC Copper cables in 25mm PVC concealed conduits complete with terminations clipping and all accessories from UEDCL meter to the consumer Unit above.**	**m**	**15**		
10.03	**Adaptable box to contain UEDCL meter and cutouts.**	**no**	**1**		
10.04	**Main Earth at adaptable box by 25mm^2 PVC copper cables to copper electrode in manhole complete with all accessories.**	**item**	**1**		
10.05	**Provisional Sum for UEDCL Power Connections**	**item**	**1**		

	Lighting				
10.06	**Lighting points wired by 1.5mm^2 twin with earth PVC-I copper cables in existing 20mm pvc conduits.**	**no**	**20**		
10.07	**1x36W 1200mm single bare batten fluorescent fitting complete with daylight tube switch start and all accessories as Thorn or equal approved.(F1)**	**no**	**18**		
10.08	**1 x 18W 600mm single waterproof, surface mounted fluorescent light fitting with GRP body and acrylic diffuser, as Thorn or equal approved (F3).**	**no**	**1**		
10.09	**1x18W 600mm single bare batten fluorescent fitting complete with daylight tube switch start and all accessories as Thorn or equal approved (F2).**	**no**	**1**		
10.10	**6A 1 gang 1 way moulded switch as MK or approved equal.**	**no**	**12**		
10.11	**6A 1 1gang 2 way moulded switch as MK or approved equal.**	**no**	**4**		
	Sockets				
10.12	**Socket outlet point wired by 2.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits and all accessories.**	**no**	**12**		
10.13	**13A 2gang switched socket outlet as MK, in MK boxes complete with all accessories.**	**no**	**12**		
	Total Carried to Collection				
	Solar Power.				
	Solar Power Supply and Lighting				
10.14	**Solar Panel, with Peak power of 75W, Max.Current of 4.5A, Max. Voltage of 17V DC, Short circuit current of 4.8A, Open circuit voltage of 21.4V DC, as SIEMENS SP75, BP SOLAR BP 275 or equal approved.**	**no**	**4**		

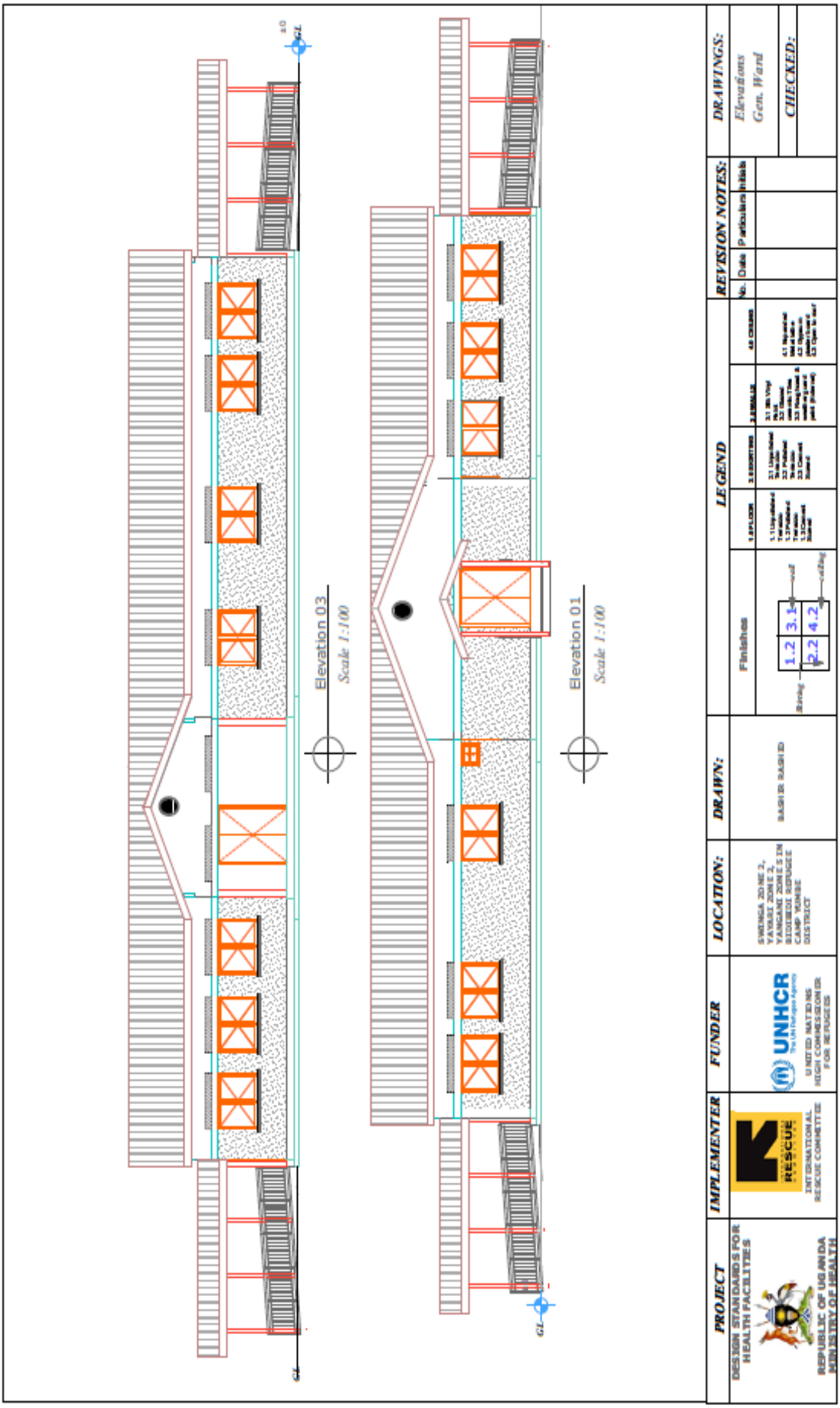
10.15	**Galvanised steel supporting structure mounted above ground at an Optimum tilt angle to be determined by site location, complete with brackets and all accessories.**	**no**	**1**		
10.16	**4Way SPN MCB Consumer Unit as MEM or equal approved.**	**no**	**1**		
10.17	**Charge Regulator with System voltage 12V / 24V DC, Max Module and Load Current of 12A, Article No. B01.548 as by Steca GmbH Memmingen (Germany) or equal approved.**	**no**	**1**		
10.18	**Inverter of Max. DC Power of 1960W, Max. Current of 14A DC / AC, Max Voltage at no load of 175V DC, as GRUDFOS (Germany) SA 1500 v03 or equal approved.**	**no**	**1**		
10.19	**Deep Cycle Maintenance Free Solar Batteries, of 115AH, 12V / 24V, as DELCO 2000 by Steca GmbH Memmingen (Germany) or equal approved.**	**no**	**4**		
					0/=
10.20	**Battery cable with fuse and interconnecting cables to Consumer unit.**	**item**	**1**		
10.21	**Earth installation by 25mm^2 PVC copper cables to copper electrode in manhole complete with all accessories.**	**item**	**1**		
10.22	**Supply Cable 16mm^2 x 3core PVC/SWA/PVC Copper cables in 25mm PVC concealed conduits complete with terminations clipping and all accessories from battery battery bank to Solar power Consumer Unit CU2.**	**m**	**15**		
10.23	**Lighting points wired by 2.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits complete with all accessories.**	**no**	**10**		

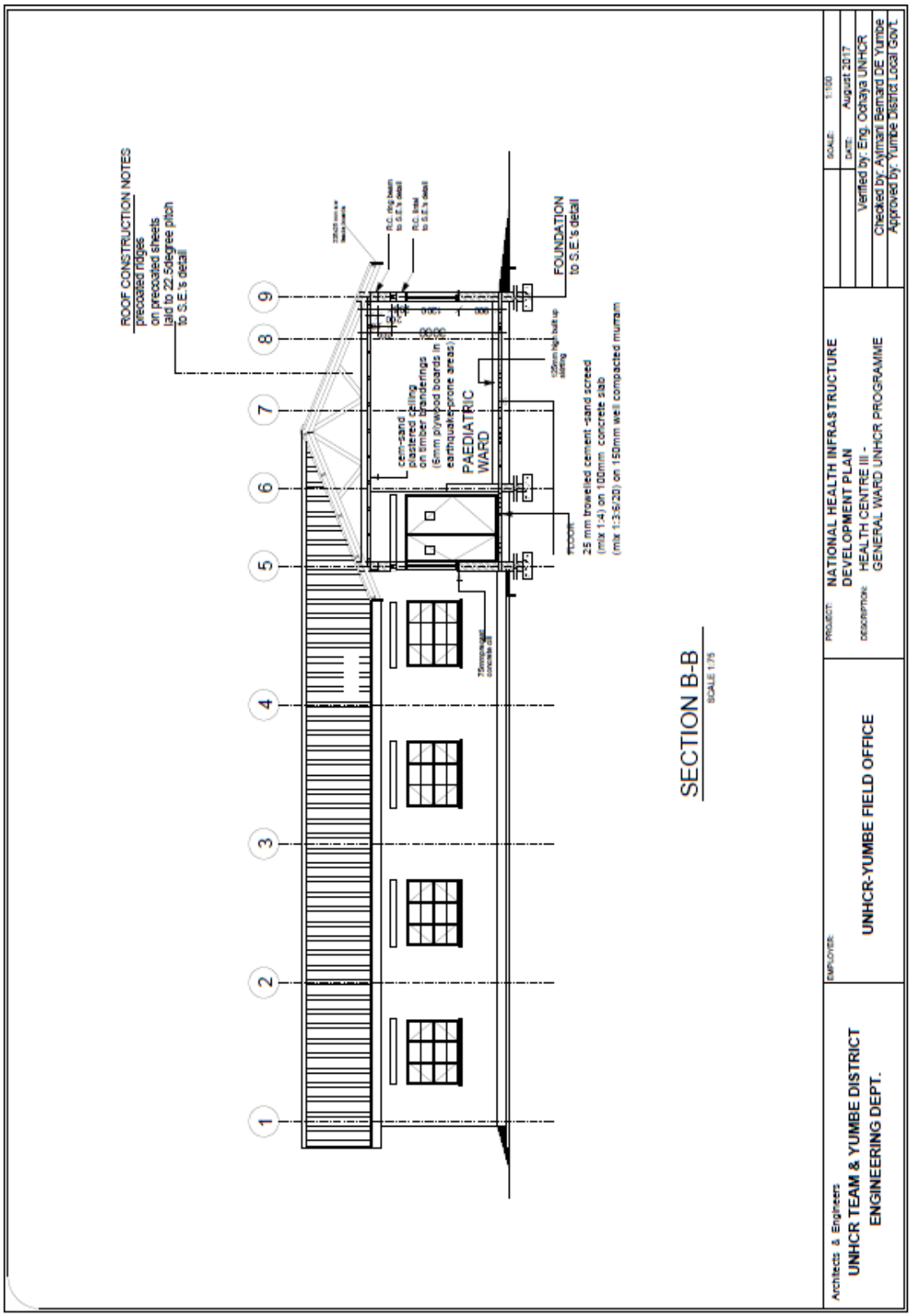
10.24	**1x18W 600mm single bare batten fluorescent fitting complete with daylight tube switch start and all accessories as Thorn or equal approved(F2).**	**no**	**9**		
	Total Carried to Collection				
10.25	**1 x 18W 600mm single waterproof, surface mounted fluorescent light fitting with GRP body and acrylic diffuser, as Thorn or equal approved (F3).**	**no**	**1**		
10.26	**1 gang 1 way 6A moulded switch as MK or approved equal.**	**no**	**10**		
10.27	**Socket outlet point wired by 2.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits to supply the solar powered fridge**	**no**	**1**		
10.28	**13A 2gang flush socket outlet as MK, in MK boxes complete with all accessories.**	**no**	**1**		
	Lightning Protection.				
10.29	**Copper tape of Hard Drawn High conductivity copper plate 3mm x 25mm cross section for Down Conductors,bonded to the iron sheet roof complete with fixing clips and all accessories as by FURSE or equal.**	**m**	**12**		
10.30	**Air terminals complete with Tape Adapter and all accessories as by FURSE or equal.**	**no**	**2**		
					0/=
10.31	**Test Blocks complete as by FURSE or equal.**	**no**	**2**		
10.32	**Earth electrodes made from Hard drawn copper or copper weld 20mm diameter by 1200mm in two length screwed together complete with cap, earth clamp, manhole and all accessories.**	**no**	**2**		
	Fire Fighting.				
	10kg sand buckets as approved.	**no**			

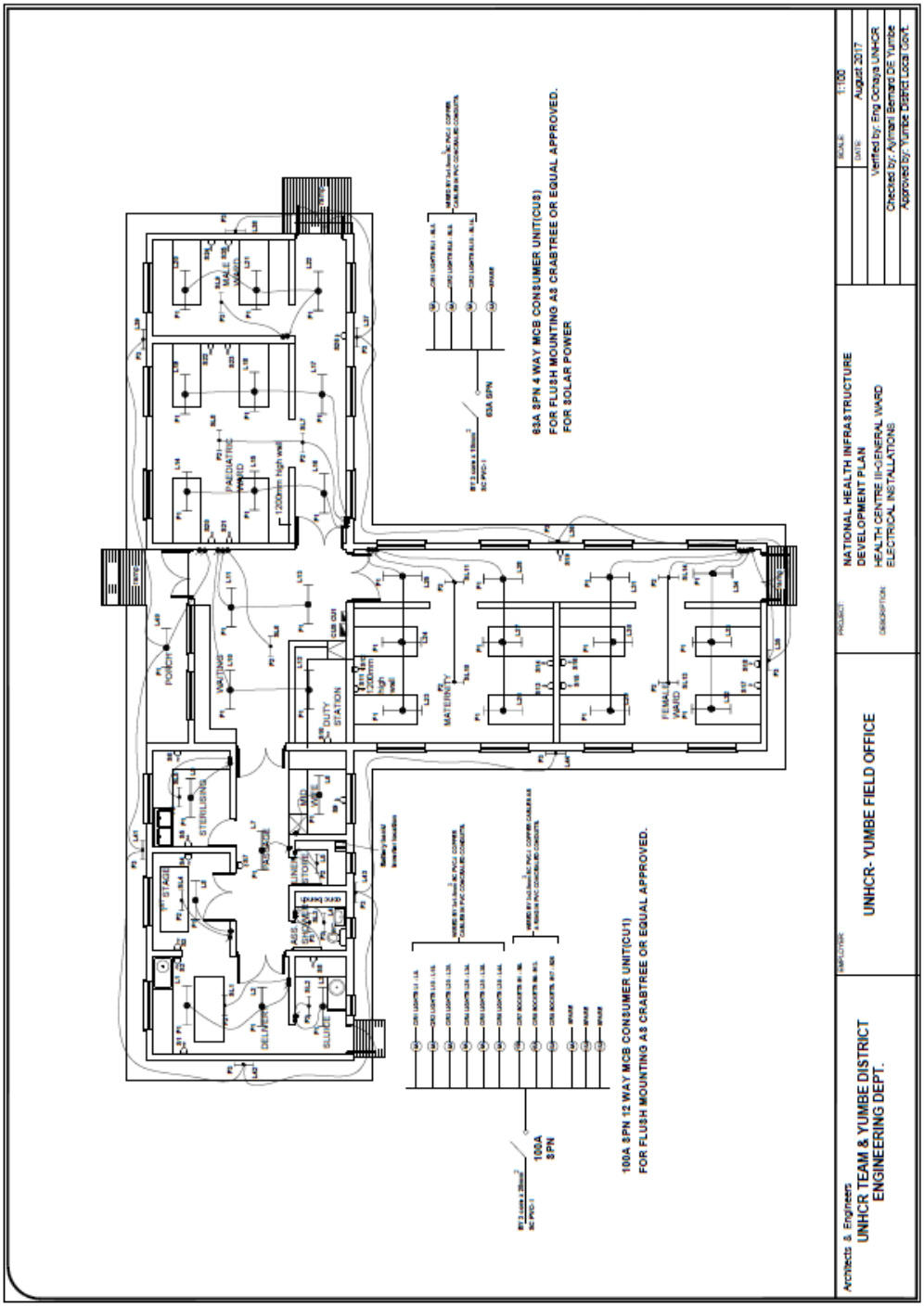
10.33			**2**		
	Total Carried to Collection				
	COLLECTION				
	Page 3/24 (omit where solar power is used)				
	Page 3/25				
	Page 3/26				
	TOTAL ELECTRICAL INSTALLATION TO SUMMARY.				

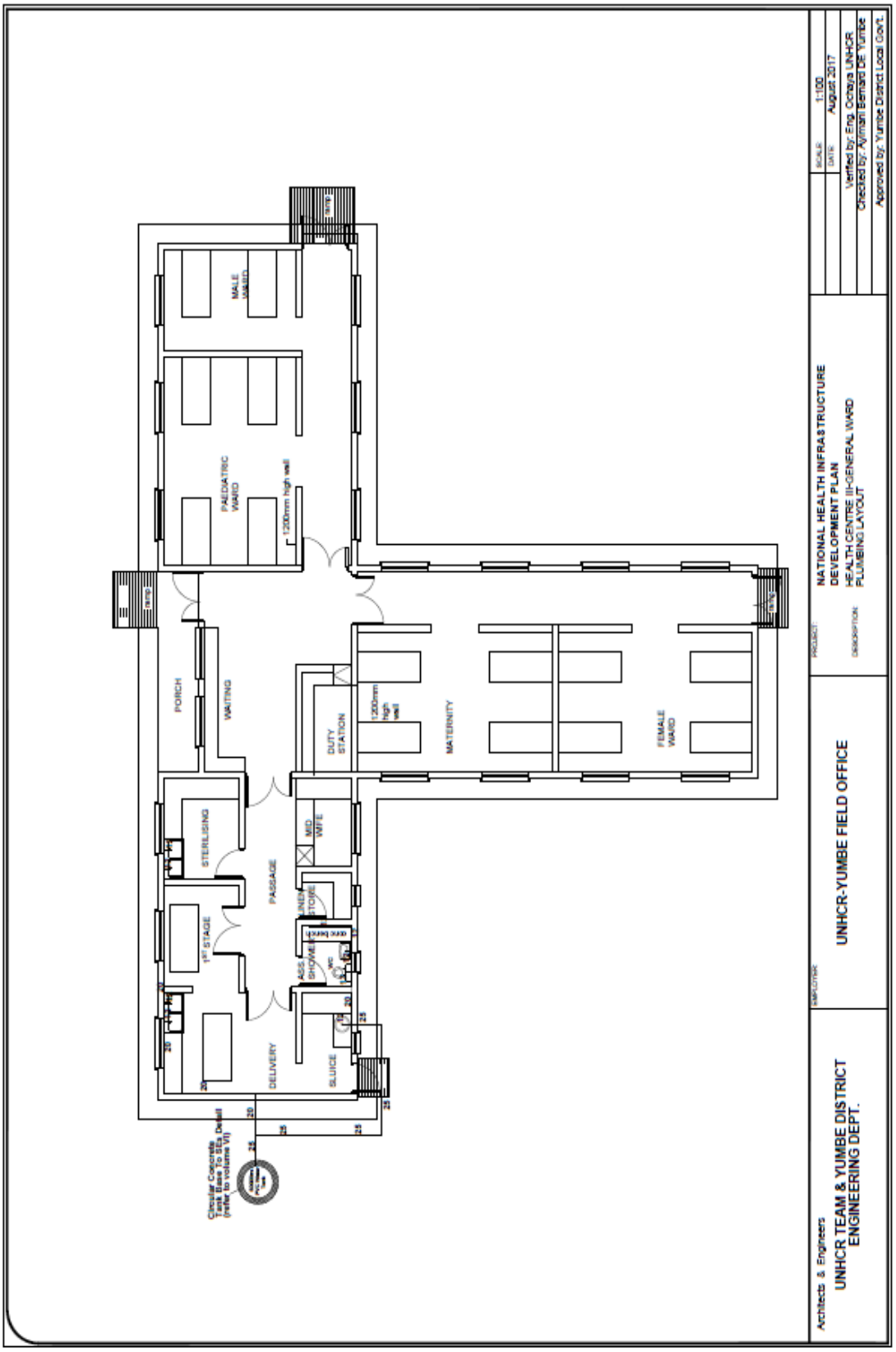


PROJECT	FUNDER	IMPLEMENTER	LOCATION:	DRAWN:	LEGEND					REVISION NOTES:				DRAWINGS:
DESIGN STANDARDS FOR HEALTH FACILITIES REPUBLIC OF UGANDA MINISTRY OF HEALTH	The United Nations High Commissioner For Refugees	International Rescue Committee	YANGANI ZONE 5, BIDIBIDI REFUGEE CAMP, YUMBE DISTRICT	Bashir Rashid	Finishes	1.0 FLOOR	2.0 SKIRTING	3.0 WALLS	4.0 CEILING	No.	Date	Particulars	Initials	GENERAL WARD GROUND PLAN CHECKED:
						1.1 Unpolished Terrazzo 1.2 Polished Terrazzo 1.3 Cement Screed	2.1 Unpolished Terrazzo 2.2 Polished Terrazzo 2.3 Cement Screed	3.1 Silk Vinyl Paint 3.2 Glazed ceramic Tiles 3.3 Roughcast & weather guard paint (External)	4.1 Expanded Metal lathe 4.2 Gypsum plaster board 4.3 Open to roof					


Elevation 03
Scale 1:100
Elevation 01
Scale 1:100
PROJECT
DESIGN STANDARDS FOR HEALTH FACILITIES
REPUBLIC OF UGANDA MINISTRY OF HEALTH
IMPLEMENTER
INTERNATIONAL RESCUE COMMITTEE
FUNDER
UNHCR
UNITED NATIONS HIGH COMMISSIONER FOR REFUGEES
LOCATION:
SWENGA ZONE 2, YAVARI ZONE 2, YANGANI ZONE 5 IN BIDIBIDI REFUGEE CAMP, YUMBE DISTRICT
DRAWN:
BASHIR RASHID
LEGEND
Finishes
REVISION NOTES:
No. Date Particulars Initials
DRAWINGS:
Elevations
Gen. Ward
CHECKED:


ROOF CONSTRUCTION NOTES
precoated ridges
on precoated sheets
laid to 22.5degree pitch
to S.E.'s detail
PAEDIATRIC
WARD
FOUNDATION
to S.E.'s detail
SECTION B-B
SCALE 1:75
Architects & Engineers
UNHCR TEAM & YUMBE DISTRICT
ENGINEERING DEPT.
EMPLOYER:
UNHCR-YUMBE FIELD OFFICE
PROJECT:
NATIONAL HEALTH INFRASTRUCTURE
DEVELOPMENT PLAN
DESCRIPTION:
HEALTH CENTRE III -
GENERAL WARD UNHCR PROGRAMME
SCALE: 1:100
DATE: August 2017
Verified by: Eng. Oshaya UNHCR
Checked by: Aviman Bernard DE Yumbe
Approved by: Yumbe District Local Govt


63A SPN 4 WAY MCB CONSUMER UNIT(CU3)
FOR FLUSH MOUNTING AS CRABTREE OR EQUAL APPROVED.
FOR SOLAR POWER
63A SPN
100A SPN 12 WAY MCB CONSUMER UNIT(CU1)
FOR FLUSH MOUNTING AS CRABTREE OR EQUAL APPROVED.
100A SPN
NATIONAL HEALTH INFRASTRUCTURE DEVELOPMENT PLAN
HEALTH CENTRE III-GENERAL WARD ELECTRICAL INSTALLATIONS
UNHCR- YUMBE FIELD OFFICE
Architects & Engineers
UNHCR TEAM & YUMBE DISTRICT ENGINEERING DEPT.
SCALE: 1:100
DATE: August 2017
Verified by: Eng Ochaya UNHCR
Checked by: Ayimani Bernard DE Yumbe
Approved by: Yumbe District Local Govt.


MALE WARD
PAEDIATRIC WARD
1200mm high wall
PORCH
WAITING
DUTY STATION
1200mm high wall
MATERNITY
FEMALE WARD
STERILISING
PASSAGE
MID WIFE
1ST STAGE
DELIVERY
SLUICE
Circular Concrete Tank Base To SEE Detail (refer to volume VI)
NATIONAL HEALTH INFRASTRUCTURE DEVELOPMENT PLAN
HEALTH CENTRE III-GENERAL WARD PLUMBING LAYOUT
1:100
August 2017
Verified by: Eng. Ocaya UNHCR
Checked By: Ayiman Bernard DE Yumbe
Approved by: Yumbe District Local Govt.
UNHCR-YUMBE FIELD OFFICE
Architects & Engineers
UNHCR TEAM & YUMBE DISTRICT ENGINEERING DEPT.

Section VII : Health Centre III : Out-Patients Department : Bills of Quantities					
Item	**Description**	**Unit**	**Qty**	**Rate**	**Amount**
				Ushs	**Ushs**
	HEALTH CENTRE III				
	BILL NO. 2 : OUT-PATIENTS DEPARTMENT				
	SUMMARY				
1	**SUBSTRUCTURE**				
2	**ROOF**				
3	**EXTERNAL WALLS**				
4	**WINDOWS & EXTERNAL DOORS**				
5	**INTERNAL WALLS & PARTITIONS**				
6	**INTERNAL DOORS**				

7	**INTERNAL FINISHINGS**				
8	**FITTINGS & FURNISHINGS**				
9	**MECHANICAL INSTALLATION**				
10	**ELECTRICAL INSTALLATION**				
	TOTAL OUTPATIENTS DEPARTMENT TO GENERAL SUMMARY				
	ELEMENT NO 1				
	SUBSTRUCTURE				
	(All Provisional)				
	Note Items 1.24 to 1.37 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				
	Site Preparation				
1.01	**Excavate oversite to remove top soil average 250mm thick and remove from site.**	**m^2**	**424**		
1.02	**Treat surface of subsoil or fillings and surroundings with approved chemical anti-termite solution: provide ten year guarantee.**	**m^2**	**424**		

	Excavation and Earthworks.				
	Note: Rates for excavation to include for keeping excavations free from water and planking and strutting to sides of excavations				
1.03	**Excavate to reduce levels and remove from site.**	**m^3**	**212**		
1.04	**Excavate trenches for wall foundations: commencing from reduced levels : not exceeding 1.5m deep .**	**m^3**	**95**		
1.05	**Extra over excavation for excavating in rock**	**m^3**	**2**		
	Disposal of excavated material				
1.06	**Selected excavated material in filling to foundation trenches : around walling : placed in 200mm layers : watered and compacted to 95% MDD**	**m^3**	**58**		
1.07	**Remove surplus excavated material from site**	**m^3**	**37**		
	Hardcore				
1.08	**150mm Filling : deposit, spread, level and compact : 25mm selected quarry dust blinding.**	**m^2**	**135**		
	Insitu concrete grade 20 / 20mm aggregate as described.				
1.09	**Foundations in trenches**	**m^3**	**13**		
1.10	**100mm thick ground floor slab tamped to fabric reinforcement.**	**m^2**	**162**		
	Total Carried to Collection				

	Reinforcement				
1.11	**Mesh reinforcement Ref No. A98 size 200 x 200 mm weighing 1.54 kg per square metre: in floor slab: including all necessary supports**	**m^2**	**162**		
	Sawn formwork as described to:				
1.12	**Vertical edges of surface bed : over 75mm but not exceeding 150 mm high.**	**m**	**52**		
	Brickwork in burnt clay bricksin cement and sand mortar (1:3) mix, , with 25 x 3mm hoop iron strips laid horizontally every alternate course.				
1.13	**230 mm thick walling.**	**m^2**	**122**		
	Sundries				
1.14	**One layer 1000 gauge polythene sheet damp proof membrane : Under bed : 300mm laps.**	**m^2**	**162**		
	Damp proof courses : hessian based bituminous felt: bedded in cement and sand (1:4) mortar : 300mm laps.				
1.15	**Horizontal : 230mm ditto**	**m**	**105**		
	Plinth wall, ramp and splash apron				
1.16	**50mm Thick bed of sand on compacted ground.**	**m^2**	**38**		
1.17	**15mm Thick cement and sand plaster to plinth walls with wood float finish.**	**m^2**	**26**		
1.18	**125mm (average) thick concrete class 25/18mm aggregate ramp reinforced with and including formwork and fabric mesh reinforcement ref A98 as before described**	**m^2**	**2**		

1.19	**Ditto but 50mm thick concrete splash apron ditto**	**m^2**	**38**		
1.20	**Ditto concrete ramp beam size 60 x 80mm deep with and including necessary excavations, formwork and disposal of surplus soil.**	**m**	**2**		
1.21	**Ditto splash apron beam size 100 x 150mm deep ditto**	**m**	**55**		
1.22	**38mm thick cement and sand (1:3) paving on splash apron wood float finish**	**m^2**	**38**		
1.23	**Prepare and apply three coats of black bituminous paint to plastered surfaces.**	**m^2**	**26**		
	Total Carried to Collection				
	<u>Earthquake areas / Soils with poor bearing capacity.</u>				
	Note: Rates for excavation to include for keeping excavations free from water and planking and strutting to sides of excavations				
1.24	**Excavate trenches for wall foundations: commencing from reduced levels : not exceeding 1.5m deep .**	**m^3**	**95**		
1.25	**Selected excavated material in filling to foundation trenches as before described.**	**m^3**	**69**		
1.26	**Remove surplus excavated material from site**	**m^3**	**26**		
	Brickwork in burnt clay bricks in cement and sand mortar (1:3) mix; with and including 25 x 3mm hoop iron strips laid horizontally every alternate course.				
1.27	**200 mm thick walling.**	**m^2**	**98**		
	Insitu concrete grade 10 / 20mmaggregate				

	as described.				
1.28	**50mm thick blinding to foundations and column bases**	**m^2**	**46**		
	Insitu concrete grade 20 / 20mm aggregate as described.				
1.29	**Foundations in trenches**	**m^3**	**4**		
	Insitu concrete grade 25 / 20mm vibrated reinforced as described.				
1.30	**Foundations in trenches**	**m^3**	**9**		
1.31	**Column Bases**	**m^3**	**1**		
1.32	**Columns**	**m^3**	**1**		
	Mild steel rod reinforcement as described.				
1.33	**8 mm diameter bar**	**kg**	**125**		
	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
1.34	**12 mm diameter bar**	**kg**	**625**		
	Total Carried to Collection				
	Sawn formwork as described to				
1.35	**Sides of Column bases**	**m^2**	**6**		

1.36	**Sides of Columns**	**m^2**	**12**		
1.37	**Sides of Strip foundations**	**m^2**	**32**		
	Total Carried to Collection				
	COLLECTION				
	-				
	Page 2/2				
	Page 2/3				
	Page 2/4				
	Page 2/5				
	TOTAL SUBSTRUCTURE TO SUMMARY				

	ELEMENT NO. 2				
	ROOF				
	Note Items 2.20 to 2.23 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				
	Insitu concrete grade 25 / 20mm: Vibrated, reinforced as described				
2.01	**Ring beams**	**m^3**	**2**		
	Mild steel reinforcement as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
2.02	**8 mm diameter bar**	**kg**	**110**		
	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
2.03	**12 mm diameter bar**	**kg**	**220**		
	Sawn formwork as described to:				
2.04	**Sides and soffites of beams**	**m^2**	**34**		

	Brickwork in burnt clay bricksin cement and sand mortar (1:3) mix;with and including 25 x 3mm hoop iron strips laid horizontally every alternate course.				
2.05	**230mm Thick gable walling**	**m^2**	**15**		
	Finishes				
	Cement and sand (1:4) render on concrete or masonry				
2.06	**15mm to walls**	**m^2**	**15**		
	Two coats tyrolene rendering on masonry				
2.07	**Walls and concrete surfaces**	**m^2**	**15**		
	Total Carried to Collection				
	Roof Construction				
	The following in roof construction including all bolting, gusset plates, fixing trusses to ring beams with holding down bolts and hoisting and fixing approximately 3.0mm above ground level.				
	Sawn cypress pressure impregnated with preservative:-				
	7 No. Trusses span 8200mm x 1800mm rise				
2.08	**50 x 100mm Purlins**	**m**	**192**		

2.09	**50 x 100mm Strut /tie**	**m**	**90**		
2.10	**50 x 150mm Ridge**	**m**	**18**		
2.11	**50 x 150mm Tie beam**	**m**	**64**		
2.12	**50 x 150mm Rafters**	**m**	**100**		
2.13	**75 x 100mm Beam**	**m**	**15**		
2.14	**75 x 100mm Wall Plate**	**m**	**33**		
	Roof Covering				
2.15	**26 Gauge pre-painted iron roofing sheets fixed with $1^1/_2$ side corrugation laps and 150mm end laps with and including approved roofing nails or galvanized steel drive screws with plastic washers to manufacturer's instructions.**	**m^2**	**220**		
2.16	**26 Gauge plain (pre-coated) roll top ridge capping.**	**m**	**18**		
	Eaves				
2.17	**25 x 225mm Wrot Cypress fascia board**	**m**	**60**		
	Painting				
	Knot prime stop and apply three coats of gloss oil paint to timber surfaces.				
2.18	**Knot, prime, stop and apply three coats of gloss oil paint to wood fascia 200-300mm girth.**	**m**	**60**		
	Roof Vents.				
2.19	**Roof Vents size 230 x 460mm high filled with Kajjansi ventilation bricks and bat**	**no**	**2**		

	proof netting complete with all necessary timber framing.				
	Total Carried to Collection				
	Earthquake areas / Soils with poor bearing capacity.				
	Insitu concrete grade 25 / 20mm: Vibrated, reinforced as described				
2.20	**Ring beams**	**m^3**	**2**		
	Mild steel reinforcement as described.				
2.21	**8 mm diameter bar**	**kg**	**110**		
	High yield tensile steel bar reinforcement to BS 4449 as described.				
2.22	**12 mm diameter bar**	**kg**	**220**		
	Sawn formwork as described to:				
2.23	**Sides and soffites of beams**	**m^2**	**34**		
	Total Carried to Collection				
	COLLECTION				
	-				
	-				
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	Page 2/6				
	Page 2/7				
	TOTAL ROOF CARRIED TO SUMMARY				
	ELEMENT NO. 3				
	EXTERNAL WALLS				
	Note Items 3.08 to 3.11 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				
	Brickwork in burnt clay bricksin cement and sand mortar (1:3) mix;with and including 25 x 3mm hoop iron strips laid horizontally every alternate course.				
3.01	**230mm thick walling.**	**m^2**	**90**		
	Permanent Vents				
3.02	**Permanent Vent filled in with Kajjansi ventilation bricks or other equal and approved ; bat proof gauze and coffee tray wire backing complete with**	**m^2**	**4**		

	necessary timber framing and beading.				
	Metal work				
3.03	**100mm Diameter x 3100mm Galvanised Iron class B with bottom end welded to 110 x 110 x 6mm thick plate set in and including concrete (1:3:6) base size 200 x 200 x 200mm deep and 100 x 80 x 6mm U-plate welded on top end**	**no**	**8**		
3.04	**12mm diameter bolt with nut and washer including drilling 2 No. 14mm diameter holes**	**no**	**8**		
	Cement and sand (1:4) render trowelled smooth on concrete or masonry				
3.05	**15mm to walls.**	**m^2**	**104**		
	Two coats tyrolene rendering on masonry				
3.06	**Walls and concrete surfaces**	**m^2**	**104**		
	Painting				
3.07	**Prepare and apply three coats gloss oil paint on steel pipe support 200-300mm girth**	**m**	**24**		
	Earthquake areas / Soils with poor bearing capacity.				
	Insitu concrete grade 25 / 20mm aggregate : vibrated reinforced.				
3.08	**Columns**	**m^3**	**1**		
	Total Carried to Collection				

	Mild steel rod reinforcement as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
3.09	**8 mm diameter bar**	**kg**	**65**		
	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
3.10	**12 mm diameter bar**	**kg**	**130**		
	Sawn formwork as described to				
3.11	**Sides of Column**	**m^2**	**23**		
	Total Carried to Collection				
	COLLECTION				
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	Page 2/10				
	TOTAL EXTERNAL WALLS TO SUMMARY				

	ELEMENT NO. 4				
	WINDOWS & EXTERNAL DOORS				
	Concrete Work				
	Precast concrete grade 25 / 20mm lintel reinforced with 4No. 12 mm high tensile steel bars and 8mm steel stirrups at 200 mm centres and including all necessary formwork and hoisting and fixing in position.				
4.01	**150 x 230 mm high**	**m**	**5**		
	Precast concrete grade 25 / 20mm aggregate : units reinforced as necessary and finished fair face on all exposed sides.				
4.02	**75 x 285 mm sunk weathered and throated window cill**	**m**	**15**		
	Purpose made steel casement windows manufactured from standard W20 sections: manufacture, assemble and deliver to site : Supply and fix ironmongery comprising approved hinges, pivoting mechanisms, stays, fasteners to opening lights: plugged and screwed or built into walling : one coat red oxide primer before delivery.				

4.03	**Window type W4 : Size 600 x 600mm overall height: 1No. top hung opening lights size 600 x 300mm high: fixed bottom light size 600 x 300mm high.**	**no**	**1**		
4.04	**Window type W1 : Size 1500 x 1200mm overall height: 2No. side hung opening lights size 500 x 1200mm high : 1 No. fixed middle light size 500 x 1200mm high.**	**no**	**6**		
	Burglar proofing grille comprising 12mm square bars 150mm centres both ways in cobweb pattern or other equal and approved pattern welded to 50 x 50 x 6mm angle the whole having one coat of red oxide primer to fit the following window sizes.				
4.05	**Window type W4 : Size 600 x 600mm overall height**	**no**	**1**		
4.06	**Window type W1 : Size 1500 x 1200mm overall height.**	**no**	**6**		
	Total Carried to Collection				
	Glass and Glazing				
4.07	**4mm thick clear sheet glass to metal window with putty**	**m^2**	**11**		
4.08	**Ditto but obscure glass**	**m^2**	**1**		
	Painting				
	Prepare touch up primer and apply one undercoat and two finishing coats of gloss oil paint : on metalwork.				
4.09	**Glazed metal surfaces**	**m^2**	**23**		

4.10	**Burglar proofing grilles**	**m^2**	**23**		
	Total Carried to Collection				
	-				
	COLLECTION				
	-				
	-				
	Page 2/11				
	Page 2/12				
	TOTAL WINDOWS & EXTERNAL DOORS TO SUMMARY				
	ELEMENT NO. 5				

	INTERNAL WALLS & PARTITIONS				
	Note Items 5.02 to 5.05 are to be priced only for areas that are earthquarke prone or with soils with poor bearing capacity.				
	Brickwork in burnt clay bricksin cement and sand mortar (1:3) mix;with and including 25 x 3mm hoop iron strips laid horizontally every alternate course.				
5.01	**230mm Thick walling reinforced with and including 25 x 3mm hoop iron strips laid horizontally every alternate course**	**m^2**	**105**		
	Earthquake areas / Soils with poor bearing capacity.				
	Insitu concrete grade 25 / 20mm aggregate : vibrated reinforced.				
5.02	**Columns**	**m^3**	**1**		
	Mild steel rod reinforcement as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
5.03	**8 mm diameter bar**	**kg**	**30**		
	High yield tensile steel bar reinforcement to BS 4449 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
5.04	**12 mm diameter bar**	**kg**	**100**		
	Sawn formwork as described to				
5.05	**Sides of Column**	**m^2**	**4**		

	TOTAL INTERNAL WALLS & PARTITIONS TO SUMMARY				
	ELEMENT NO. 6				
	INTERNAL DOORS				
	Concrete Work				
	Precast concrete grade 25 / 20mm lintel reinforced with 4No. 12 mm high tensile steel bars and 8mm steel stirrups at 200 mm centres and including all necessary formwork and hoisting and fixing in position.				
6.01	**200 x 200 mm high**	**m**	**10**		
	Purpose made steel pannelled doors manufactured from 2mm thick mild steel plates welded both sides to RHS frames with fixing lugs cast into walling : Supply and fix approved hinges : one coat red oxide primer before delivery.				
6.02	**Door type D4 size 900 x 2100mm high**	**no**	**2**		
	Matchboarded door comprising 45 x 150mm top and bottom rails and stiles and 25 x 100mm tongued and grooved, vee-jointed panels.				
6.03	**45mm Door size 850 x 2075mm high (D9).**	**no**	**5**		

	Wrot Mahogany : Selected and kept Clean				
6.04	**25 x 50mm Architrave: two labours**	**m**	**52**		
6.05	**50 x 150mm Door Frame: two labours: plugged.**	**m**	**26**		
	Ironmongery				
	Supply and fix the following ironmongery of "UNION" Manufacture as described.				
6.06	**Butt Hinges, 75 x 100mm : finished stainless steel.**	**prs**	**8**		
6.07	**25mm Rubber door stop plugged to wall or floor.**	**no**	**7**		
6.08	**3 Lever Mortice Lock complete with lever furniture**	**no**	**5**		
6.09	**Ditto steel door lock**	**no**	**5**		
	Painting				
	Prepare Knot, Prime, stop and apply three coats of gloss oil paint : on woodwork				
6.10	**General Surfaces : doors**	**m^2**	**19**		
6.11	**Ditto: over 200 but not exceeding 300mm girth**	**m**	**26**		
	Total Carried to Collection				
6.12	**Ditto not exceeding 100mm girth**	**m**	**52**		
6.13	**Prime back of frame before fixing**	**m**	**26**		
	Painting				

	Prepare touch up primer and apply one undercoat and two finishing coats of gloss oil paint : on metalwork.				
6.15	**General metal surfaces**	**m^2**	**8**		
	Total Carried to Collection				
	COLLECTION				
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	Page 2/15				
	TOTAL INTERNAL DOORS TO SUMMARY				

	ELEMENT NO. 7				
	INTERNAL FINISHES				
	Floor Finishes				
	Cement and sand (1:4) screeds and pavings : one coat: steel trowell finish : laid on concrete				
7.01	**40mm thick paving.**	**m^2**	**144**		
7.02	**125 x 125mm coved skirting**	**m**	**103**		
	Wall Finishes				
7.03	**15mm thick to cement and sand plaster, steel trowell finish to walls.**	**m^2**	**357**		
	Painting : 'Sadolin Paints' or equal and approved.				
7.04	**Prepare and apply one undercoat and two finishings coats of matt vinyl paint to plastered surfaces.**	**m^2**	**357**		
	Ceiling Finishes				
7.05	**9 x 24 SWG galvanized expanded metal lathing U-nailed to timber branderings**	**m^2**	**144**		
7.06	**Cement and sand (1:4) pricking course to metal lathing**	**m^2**	**144**		
7.07	**12mm cement and sand plaster to ceiling**	**m^2**	**144**		
7.08	**Extra for 150 x 150mm thick cement and sand (1:3) cornice**	**m**	**115**		

	Ceiling Structure				
	Pressure impregnated sawn Cypress				
7.09	**50 x 50mm branderings**	**m**	**285**		
7.10	**50 x 100mm joists**	**m**	**360**		
	Painting				
	Prepare and apply three coats of first grade emulsion paint on:.				
7.11	**Plastered ceiling**	**m^2**	**144**		
7.12	**Cornice : Over 100 but not exceeding 200mm girth.**	**m**	**115**		
	Total Carried to Collection				
	Earthquake areas				
	For Earthquake areas / Soils with poor bearing capacity price the following items in lieu of items 7.10 - 7.13.				
7.13	**6mm Thick internal quality plywood nailed to branderings.**	**m^2**	**144**		
7.14	**25 x 45mm Wrot Hardwood Cornice.**	**m**	**115**		
	Total Carried to Collection				
	COLLECTION				
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	TOTAL INTERNAL FINISHES TO SUMMARY.				
	ELEMENT NO. 8				
	FITTINGS AND FIXTURES				
	Curtain Boxes				

8.01	**Pelmet box comprising 150 x 25mm Fascia, 125 x 25mm top 150 x 125 x 25mm stopped ends jointed together, complete with and including I-section aluminium curtain rail with rollers**	**m**	**15**		
	Prepare and apply three coats of polyurethane lacquer: on woodwork				
8.02	**General surfaces of pelmet boxes**	**m^2**	**10**		
	Blackboard				
8.03	**Approved blackboard size 2100 x 1200mm high with and including 50 x 25mm softwood framing plugged to wall**	**no**	**1**		
	Service Hatch				
8.04	**Purpose made timber service hatch size 600 x 900mm high to detail**	**no**	**1**		
	Concrete wall shelving				
8.05	**75mm Thick reinforced concrete (1:2:4) slab finished smooth on exposed surfaces with 12mm cement and sand (1:3) screed.**	**m^2**	**4**		
8.06	**Concrete (1:2:4) beam size 200 x 185mm deep reinforced with and including 4 No. Y12 steel bars, R8 links at 200mm centres and formwork.**	**m**	**10**		
8.07	**Fabric mesh reinforcement ref. A98 laid in slab**	**m^2**	**4**		
8.08	**Sawn formwork to soffite of slab**	**m^2**	**4**		
8.09	**Ditto edge of slab 75mm high**	**m**	**10**		
	Concrete Work top				
	100mm concrete grade 10 / 20mm	**m^2**			

8.10	**aggregate : plinth**		**11**		
8.11	**Concrete (1:2:4) beam size 200 x 185mm deep reinforced with and including 4 No. Y12 steel bars, R8 links at 200mm centres and formwork.**	**m**	**30**		
8.12	**75mm Thick reinforced concrete (1:2:4) slab finished with 15mm terrazzo finish on exposed surfaces.**	**m^2**	**11**		
	Total Carried to Collection				
8.13	**Fabric mesh reinforcement ref. A98 laid in slab**	**m^2**	**11**		
8.14	**Wrot formwork to soffite of slab**	**m^2**	**11**		
8.15	**Ditto edge of slab / plinth 75 - 150mm high**	**m**	**40**		
8.16	**25mm thick blockboard door, shelf, back and base with hardwood lipping to exposed edges**	**m^2**	**69**		
8.17	**25 x 25mm softwood bearer**	**m**	**38**		
8.18	**50 x 50mm ditto**	**m**	**36**		
8.19	**Approved cupboard lock**	**no**	**7**		
8.20	**75mm steel butt hinges**	**prs**	**7**		
8.21	**Approved ball catch**	**no**	**14**		
8.22	**Ditto pull handles**	**no**	**7**		

8.23	**Prepare and apply three coats gloss oil paint on wood surfaces.**	**m^2**	**94**		
8.24	**Ditto to frame not exceeding 100mm girth.**	**m**	**74**		
	Battery Cage				
8.25	**Battery Cage overall size 1050 x 1550 x 1350mm high to details : comprising 100mm thick concrete (1:3:6) base with 100 x 200mm edge beam : 6 No. 50 x 50 x 4mm RHS vertical pillars : 50 x 50 x 4mm RHS horizontal braces on top and bottom on all elevations : 12mm square bars welded to hollow sections at 150mm centres on all elevations : Door size 750 x 1200mm high with 50 x 50 x 4mm RHS framing and 12mm square bars as described and complete with heavy duty hinges and locking devices : Roof with 50 x 100mm Purlins and 26 gauge glavanised corrugated iron sheets : the whole with one coat red oxide primer and three coats of gloss oil paint.**	**no**	**1**		
	Total Carried to Collection				
	COLLECTION				
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	Page 2/19				
	TOTAL FITTINGS & FIXTURES TO SUMMARY.				
	ELEMENT NO. 9				
	MECHANICAL INSTALLATION				
	Supply, install, connect and set to work the following, all as described in the Specifications and Drawings.				

	Sanitary Appliances				
9.01	**18 Gauge Stainless Steel Sink as ARMITAGE SHANKS htm64 doon single bowl sink,S5861(5337014K)(SK-1), no tapholes, no overflow, complete with single nimbus 13mm bib tap, S7206(661041G), antisplash outlet S8346(8174BPR), extension pieces S8331(81460PR),wall mounts with extension inlets, 38mm resealing bottle trap, S8925(7360800) and 75mm seal and multipurpose outlet or equal approved.**	**no**	**4**		
9.02	**60cm Acrylic Towel Rail with brackets, as ARMITAGE SHANKS MAYFAIR S5014 (20811TR) or equal approved**	**no**	**4**		
	Water Supply to Appliances				
9.03	**25 mm class B cold water pipe, burried in the ground, burried in wall, clipped to wall, or in duct complete with all fittings and accessories.**	**m**	**5**		
9.04	**20 mm class B cold water pipe,burried in the ground, burried in wall, clipped to wall, or in duct complete with all fittings and accessories.**	**m**	**5**		
9.05	**12 mm class B cold water pipe, burried in wall, clipped to wall, or in duct, complete with all fittings and accessories.**	**m**	**10**		
9.06	**12mm gate valves as Peglar heavy duty or equal approved.**	**no**	**2**		
9.07	**20mm gate valves as Peglar heavy duty or equal approved.**	**no**	**1**		
9.08	**25mm gate valves as Peglar heavy duty or equal approved.**	**no**	**1**		
9.09	**Flexible tubes (stainless steel braid on PVC) for connection of appliances, complete.**	**no**	**4**		

	Total Carried to Collection				
	Water Supply				
9.10	**6,000 litre pvc tank placed on ground concrete base (measured separetely), complete with all accessories.**	**no**	**1**		
9.11	**25mm gate valves as Peglar heavy duty or equal approved.**	**no**	**1**		
9.12	**12mm Stand by pipe, complete with 12mm gate valve, tap and all accessories**	**Item**	**1**		
9.13	**1.5m high Ground concrete water tank base, made in masonry brickwork, well compacted hardcore, with 150mm thick slab on top as shown in drawing, for the above water tank, complete.**	**no**	**1**		
	Internal Drainage				
9.14	**38mm PVC heavy gauge pipes complete with bends and all accessories for WHBs, sinks, in floor, walls, up to manholes/Gully Trap .**	**m**	**30**		
	External Drainage				
9.15	**110mm PVC heavy gauge pipework burried in the ground to a fall of 1:60 complete with excavations, bedding, backfilling and all accessories.**	**m**	**20**		
9.16	**Gully Trap (GT) complete with PVC trap, masonry construction 300x300mm, with steel cover and all accessories.**	**no**	**2**		
9.17	**Manhole 450 x 600mm in masonry brickwork, rendered smooth inside complete with benching, heavy duty**	**no**	**1**		

	manhole cover made out of concrete and angles and all accessories.				
9.18	**Soak Pit Size approx. 2500mm on top tappering to 1500mm and depth of 1500mm complete with hardcore and all accessories.**	**no**	**1**		
	Total Carried to Collection				
	COLLECTION				
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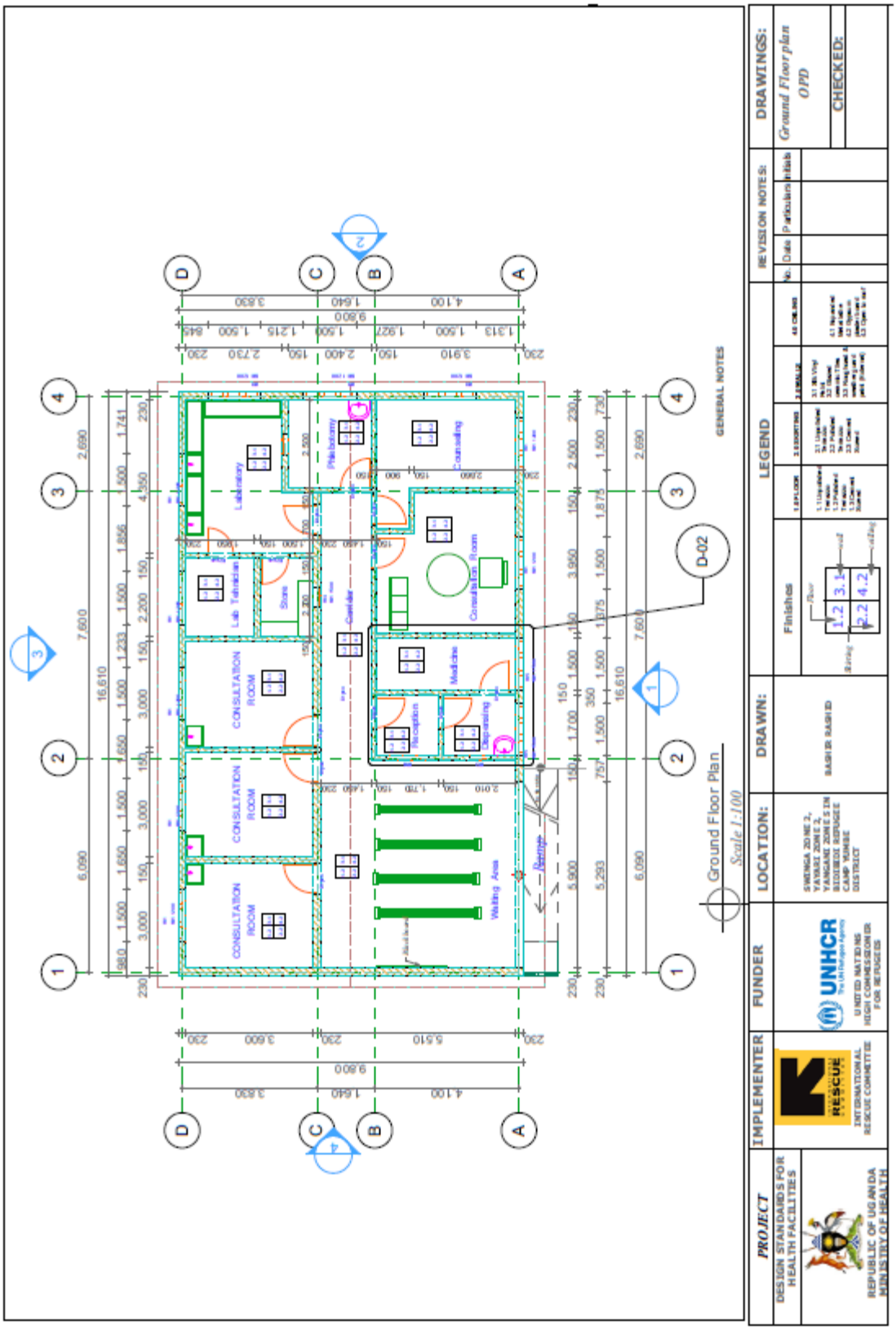
	Page 2/21				
	TOTAL MECHANICAL INSTALLATION TO SUMMARY				
	ELEMENT NO. 10				
	ELECTRICAL INSTALLATION				
	Supply, install, connect and set to work the following, all as described in the Specifications and Drawings.				
	Power Supply				
10.01	**100A 6-Way SPN MCB Consumer Unit flush mounting complete with integral isolator, MCBs and all accessories as MEM, CRABTREE or equal approved.**	**no**	**1**		
10.02	**Supply Cable 16mm^2 x 3core PVC/SWA/PVC Copper cables in 25mm PVC concealed conduits complete with terminations clipping and all accessories from UEDCL meter to the consumer Unit above.**	**m**	**15**		

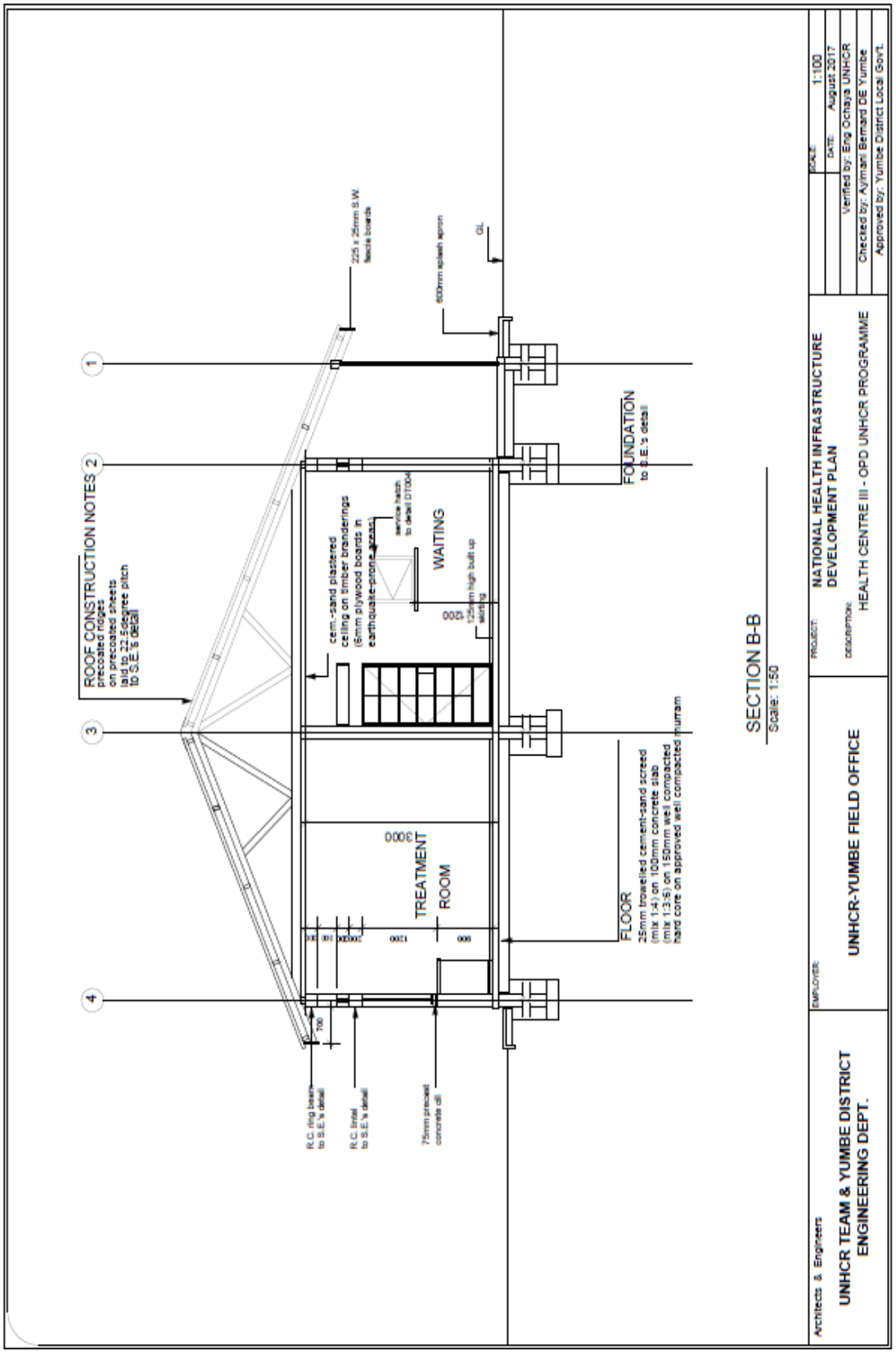
10.03	**Adaptable box to contain UEDCL meter and cutouts.**	**no**	**1**		
10.04	**Main Earth at adaptable box by 25mm^2 PVC copper cables to copper electrode in manhole complete with all accessories.**	**item**	**1**		
10.05	**Provisional Sum for UEDCL Power Connections**	**item**	**1**		
	Lighting				
10.06	**Lighting points wired by 1.5mm^2 twin with earth PVC-I copper cables in existing 20mm pvc conduits.**	**no**	**17**		
10.07	**1 x 36W 1200mm single bare batten fluorescent fitting complete with daylight tube switch start and all accessories as Thorn or equal approved.(F1)**	**no**	**13**		
10.08	**1 x 18W 600mm single waterproof, surface mounted fluorescent light fitting with GRP body and acrylic diffuser, as Thorn or equal approved (F3).**	**no**	**4**		
10.09	**6A 1 gang 1 way moulded switch as MK or approved equal.**	**no**	**16**		
	Sockets				
10.10	**Socket outlet point wired by 2.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits complete with all accessories.**	**no**	**12**		
10.11	**13A 2gang switched socket outlet as MK, in MK boxes complete with all accessories.**	**no**	**12**		
	Total Carried to Collection				
	Solar Power.				
	Solar Power Supply and Lighting				

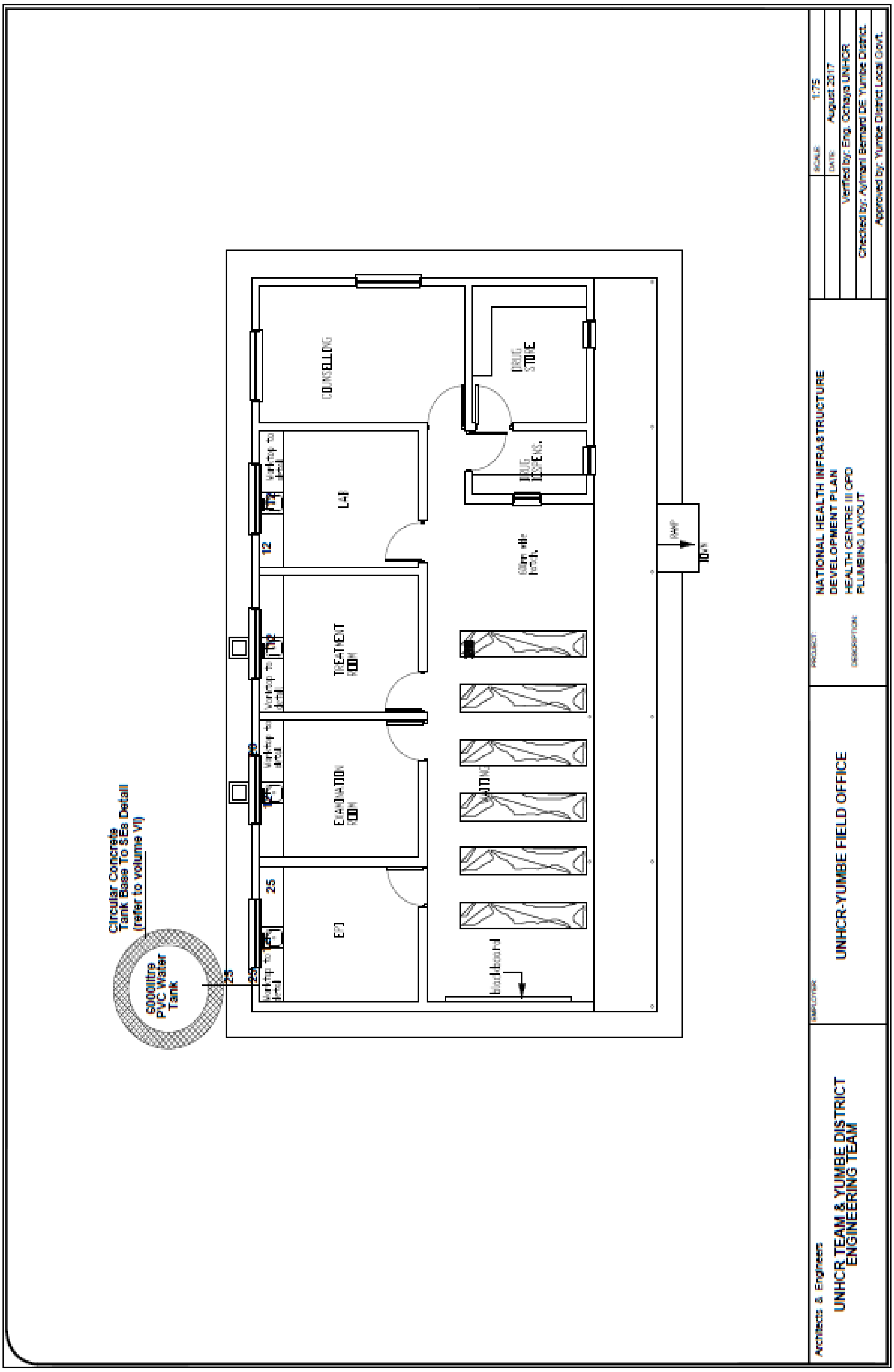
10.12	**Solar Panel, with Peak power of 75W, Max.Current of 4.5A, Max. Voltage of 17V DC, Short circuit current of 4.8A, Open circuit voltage of 21.4V DC, as SIEMENS SP75, BP SOLAR BP 275 or equal approved.**	**no**	**4**		
10.13	**Galvanised steel supporting structure mounted above ground at an Optimum tilt angle to be determined by site location, complete with brackets and all accessories.**	**no**	**1**		
10.14	**4Way SPN MCB Consumer Unit as MEM or equal approved.**	**no**	**1**		
10.15	**Charge Regulator with System voltage 12V / 24V DC, Max Module and Load Current of 12A, Article No. B01.548 as by Steca GmbH Memmingen (Germany) or equal approved.**	**no**	**1**		
10.16	**Inverter of Max. DC Power of 1960W, Max. Current of 14A DC / AC, Max Voltage at no load of 175V DC, as GRUDFOS (Germany) SA 1500 v03 or equal approved.**	**no**	**1**		
10.17	**Deep Cycle Maintenance Free Solar Batteries, of 115AH, 12V / 24V, as DELCO 2000 by Steca GmbH Memmingen (Germany) or equal approved.**	**no**	**4**		
10.18	**Battery cable with fuse and interconnecting cables to Consumer unit.**	**item**	**1**		
10.19	**Earth installation by 25mm^2 PVC copper cables to copper electrode in manhole complete with all accessories.**	**item**	**1**		
10.20	**Supply Cable 16mm^2 x 3core PVC/SWA/PVC Copper cables in 25mm PVC concealed conduits complete with terminations clipping and all accessories from battery battery bank to Solar power Consumer Unit CU2.**	**m**	**15**		

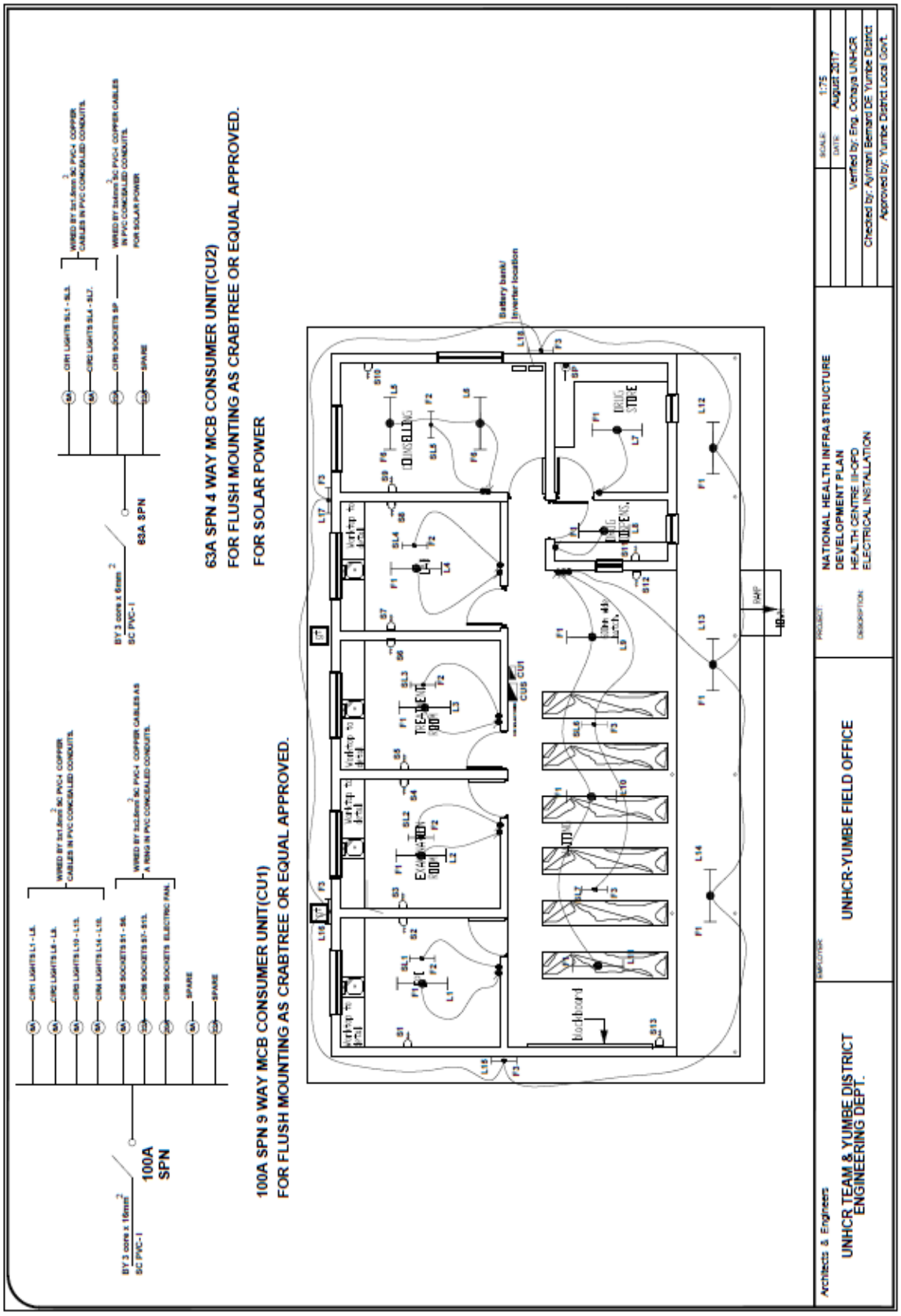
10.21	**Lighting points wired by 2.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits complete with all accessories.**	**no**	**7**		
10.22	**1x18W 600mm single bare batten fluorescent fitting complete with daylight tube switch start and all accessories as Thorn or equal approved(F2).**	**no**	**7**		
10.23	**1 gang 1 way 6A moulded switch as MK or approved equal.**	**no**	**7**		
	Total Carried to Collection				
	Sockets.				
10.24	**Socket outlet point wired by 2.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits to supply the solar powered fridge**	**no**	**1**		
10.25	**13A 2gang flush socket outlet as MK, in MK boxes complete with all accessories.**	**no**	**1**		
	Lightning Protection.				
10.26	**Copper tape of Hard Drawn High conductivity copper plate 3mm x 25mm cross section for Down Conductors,bonded to the iron sheet roof complete with fixing clips and all accessories as by FURSE or equal.**	**m**	**12**		
10.27	**Air terminals complete with Tape Adapter and all accessories as by FURSE or equal.**	**no**	**2**		
10.28	**Test Blocks complete as by FURSE or equal.**	**no**	**2**		
10.29	**Earth electrodes made from Hard drawn copper or copper weld 20mm diameter by 1200mm in two length screwed together complete with cap, earth clamp, manhole and all accessories.**	**no**	**2**		
	Fire Fighting.				

10.30	**9kg powder type wall mounted fire extinguisher as ANGUS or equal approved.**	**no**	**1**		
	Total Carried to Collection				
	COLLECTION				
	Page 2/23 (omit where solar power is used)				
	Page 2/24				
	Page 2/25				
	TOTAL ELECTRICAL INSTALLATION TO SUMMARY.				


Ground Floor Plan
Scale 1:100
GENERAL NOTES
D-02
Laboratory
Phlebotomy
Counseling
Lab Technician
Store
Corridor
Consultation Room
Medicine
Reception
Dispensing
CONSULTATION ROOM
CONSULTATION ROOM
CONSULTATION ROOM
Waiting Area
Ramp
LEGEND
Finishes
DRAWN:
BASHIR RASHID
LOCATION:
SWENGA ZONE 2,
YAYARI ZONE 2,
YANGANI ZONE 5 IN
BIDIBIDI REFUGEE
CAMP YUMBE
DISTRICT
FUNDER
UNHCR
UNITED NATIONS
HIGH COMMISSIONER
FOR REFUGEES
IMPLEMENTER
RESCUE
INTERNATIONAL
RESCUE COMMITTEE
PROJECT
DESIGN STANDARDS FOR
HEALTH FACILITIES
REPUBLIC OF UGANDA
MINISTRY OF HEALTH
REVISION NOTES:
No.
Date
Particulars/details
DRAWINGS:
Ground Floor plan
OPD
CHECKED:


ROOF CONSTRUCTION NOTES
precoated ridges
on precoated sheets
laid to 22.5degree pitch
to S.E.'s detail
225 x 25mm S.W. fascia boards
600mm splash apron
GL
FOUNDATION
to S.E.'s detail
cem.-sand plastered
ceiling on timber branderings
(6mm plywood boards in
earthquake-proof areas)
service hatch
to detail DT004
WAITING
125mm high built up
skirting
TREATMENT
ROOM
3000
FLOOR
25mm trowelled cement-sand screed
(mix 1:4) on 100mm concrete slab
(mix 1:3:6) on 150mm well compacted
hard core on approved well compacted murram
R.C. ring beam
to S.E.'s detail
R.C. lintel
to S.E.'s detail
75mm precast
concrete sill
SECTION B-B
Scale: 1:50
Architects & Engineers:
UNHCR TEAM & YUMBE DISTRICT
ENGINEERING DEPT.
EMPLOYER:
UNHCR-YUMBE FIELD OFFICE
PROJECT:
NATIONAL HEALTH INFRASTRUCTURE
DEVELOPMENT PLAN
DESCRIPTION:
HEALTH CENTRE III - OPD UNHCR PROGRAMME
SCALE: 1:100
DATE: August 2017
Verified by: Eng Ochaya UNHCR
Checked by: Ayiman Bernard DE Yumbe
Approved by: Yumbe District Local Govt.


SCALE: 1:75
DATE: August 2017
Verified by: Eng. Ochaya UNHCR
Checked by: Ayimani Bernard DE Yumbe District
Approved by: Yumbe District Local Govt.
PROJECT: NATIONAL HEALTH INFRASTRUCTURE DEVELOPMENT PLAN
DESCRIPTION: HEALTH CENTRE III OPD
PLUMBING LAYOUT
EMPLOYER: UNHCR-YUMBE FIELD OFFICE
Architects & Engineers
UNHCR TEAM & YUMBE DISTRICT ENGINEERING TEAM
COUNSELLING
DRUG STORE
DRUG DISPENS.
LAB
TREATMENT ROOM
EXAMINATION ROOM
EPI
WAITING
RAMP
DOWN
Circular Concrete Tank Base To SEs Detail (refer to volume VI)
6000litre PVC Water Tank


100A SPN 9 WAY MCB CONSUMER UNIT(CU1)
FOR FLUSH MOUNTING AS CRABTREE OR EQUAL APPROVED.
63A SPN 4 WAY MCB CONSUMER UNIT(CU2)
FOR FLUSH MOUNTING AS CRABTREE OR EQUAL APPROVED.
FOR SOLAR POWER
100A SPN
63A SPN
Battery bank/ Inverter location
Blackboard
Architects & Engineers
UNHCR TEAM & YUMBE DISTRICT ENGINEERING DEPT.
UNHCR-YUMBE FIELD OFFICE
NATIONAL HEALTH INFRASTRUCTURE DEVELOPMENT PLAN
HEALTH CENTRE III-OPD
ELECTRICAL INSTALLATION
1:75
August 2017
Verified by: Eng. Ochaya UNHCR
Checked by: Ayiman Bernard DE Yumbe District
Approved by: Yumbe District Local Govt.

	GENERAL SUMMARY PAGE				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	SUMMARY OF BILL				
	BILL NO. 1 : STAFF HOUSE				
	ELEMENT NO. 1 : PRELIMINARIES				
	ELEMENT NO. 1 : SUBSTRUCTURE				
	ELEMENT NO. 2 : BUILDING FRAME				
	ELEMENT NO. 3 : WALLS				
	ELEMENT NO. 4 : ROOF STRUCTURE				
	ELEMENT NO. 5 : WINDOWS				
	ELEMENT NO. 6 : DOORS				
	ELEMENT NO. 7 : FLOOR FINISHES				
	ELEMENT NO. 8 : WALL FINISHES				
	ELEMENT NO. 9 : ROOF FINISHES				
	ELEMENT NO. 10 : ROOF WATER DRAINAGE				
	ELEMENT NO. 11 : LIGHTNING PROTECTION				
	ELEMENT NO. 12 : POWER AND LIGHTING				

	TOTAL BILL NO. 1 : HEALTHCENTRE STAFF HOUSE CARRIED TO GENERAL SUMMARY				

Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT No. 1				
	PRELIMINARIES AND GENERAL ITEMS				
	<u>General</u>				
A	**The contractor must allow for costs in his tender in respect of these preliminary and general items by pricing these items**				
	If the contractor leaves any items unpriced, he shall be deemed to have considered that the rates in the remaining items in the bills of quantities are sufficient to perform the services and obligations				

	of these unpriced items				
	Fencing				
B	**Immediately upon taking possession of the site, the contractor will be required to erect fencing and gates for the security of his materials, plant and stores**	**ITEM**	**1**		
	Storage				
C	**The contractor must provide for the storage of the materials, plant and tools. For materials that are affected by weather, the storage sheds to be provided must be covered to keep out the rain and must be lockable**	**ITEM**	**1**		
	Program of works				
D	**A program of works MUST be provided by the contractor**				
	Building Regulations				
E	**The whole of the works shall be executed according to current building regulations and to the satisfaction of local authorities**				
	Definitions and abbreviations				
F	**The following definitions and abbreviations to denote the unit of measurement, are used throughout these bills of quantities**				
	The term "Engineer" shall mean the employer's representative (or the professional to whom the employer's representative has assigned the duty)				
	Total Carried to Collections 1/1				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	CM to denote cubic meters				
	SM to denote square meters				
	LM to denote linear meters				
	No. to denote enumerated item				
	KG to denote kilogrammes				

	SMM to denote the Standard Method of Measurement of Building Works for East Africa, Metric 1970 edition				
	mm to denote millimeters				
	BS to denote the current British Standards three months before the date of invitation of this bid				
	Foreman				
A	**The contractor shall allow for a qualified and experienced foreman FULL-TIME on site. The employer's representative shall approve the foreman**	**ITEM**			
	Transport				
B	**The contractor shall include in his prices the transportation of materials, workmen, plant and tools, to and from site**				
	Samples				
C	**The contractor shall furnish, before commencement of works any samples or workmanship at his own cost for approval by the Engineer**				
	Sanitation				
D	**The contractor shall provide onsite, the necessary latrines for his staff and workmen to the requirements and satisfaction of the health authorities**	**ITEM**	**1**		
	Security				
E	**The contractor shall adequately safeguard the site, works, materials and plant from theft and damage by vandals**	**ITEM**	**1**		
	Plant, tools and scaffolding				
F	**The contractor shall allow for mobilization and demobilization of plant, equipment, temporary works, personnel, etc**	**ITEM**	**1**		
	Total Carried to Collections 1/2				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	Water				

G	**The contractor shall provide for all the necessary water to execute the works at his own cost**	**ITEM**	**1**		
	Site Meetings				
H	**Site meetings shall be conducted every fortnight (14 days) chaired by the employer's representative. The contractor MUST attend all these site meetings**				
	Work at or after completion				
I	**The contractor shall allow for making good all damages**				
	Sign Boards				
J	**One sign board to be erected on a chosen site to the employer's approval. This board shall state the project, the funder, the employer (implementer), name of the supervisor and the contractor**	**ITEM**	**1**		
	Total Carried to Collections 1/3				
	COLLECTIONS				
	Total Carried to Collections 1/1				
	Total Carried to Collections 1/2				
	Total Carried to Collections 1/3				
	TOTAL PRELIMINARIES & GENERAL ITEMS				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO 1: SUBSTRUCTURE				
	Site Preparation				
A	**Excavate top vegetable soil average 150mm deep and cart to spoil**	**m^2**	**280**		
					-
B	**Anti-termite treatment to : sides and bottoms of foundations**	**m^2**	**330**		

					-
C	Ditto : stripped surfaces of ground	m^2	280		
					-
D	Ditto : blinded surfaces of hardcore	m^2	145		
					-
	Excavations and Earthworks				-
					-
E	Excavate foundation trenches: not exceeding 1.5m deep :				-
	commencing from stripped level	m^3	80		
					-
F	Excavate column bases : not exceeding 1.5m deep :				-
	commencing from stripped level	m^3			-
					-
G	Extra over excavations : breaking up rock met with in excavations	m^3	5		
					-
	Disposal of excavated materials				-
					-
H	Return, fill and ram: selected excavated materials around				-
	foundations: in 200mm layers compacted to 95% MDD.	m^3	40		
					-
I	Surplus excavated material: Load up, cart, deposit, spread and				-
	level on site where directed.	m^3	40		
					-
	Fillings				-
					-
J	125mm Murram filling : well watered and compacted to 95%				-
	MDD 95% : to make up levels under floor bed	m^2	127		
					-
K	150mm Hardcore bed : in broken stone blinded with and				-
	including 20mm layer of approved blinding ; under floor bed	m^2	127		
					-
L	Ditto : under splash aprons	m^2	30		

					-
	Mass in-situ concrete class15/20mm aggregate,				-
	[mix 1:3:6] : in				-
					-
M	**Foundation in trenches**	**m^3**	**23**		
					-
	Mass in-situ concrete class 15/20mm aggregate,				-
	[mix 1:3:6] : in				-
					-
N	**Ramp : size 5690 x 900 x 250mm thick (average)**	**m^3**	**1**		
					-
O	**100mm Floor bed**	**m^2**	**171**		
					-
P	**75mm Splash apron bed**	**m^2**	**45**		
					-
Q	**75 x 125mm Concrete down stand**	**m**	**75**		
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Total Carried to Collection			**Shs**	
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	Mild steel reinforcement to BS 4483				
A	**Steel fabric mesh reinforcement ref no. A98 weighing**				
	1.58kg/m^2: in floor bed: including tying wire and distance blocks	**m^2**	**171**		
					-
	Plain in-situ concrete class 10/38mm aggregate[mix 1:4:8] : in				-
					-
B	**50mm Blinding : to bottoms of excavations**	**m^2**			-
					-

	Reinforced in-situ concrete class 25/20mm aggregate				-
	[mix 1:2:4]: in				-
					-
C	**Column bases**	**m^3**			-
					-
D	**Stud columns**	**m^3**			-
					-
E	**Ground beams**	**m^3**			-
					-
	High yield tensile steel bar reinforcement to BS 4461 as				-
	described including cutting and 16mm SWG (1.6mm),				-
	bending and fixing, tying wire and spacer blocks				-
					-
F	**12mm Diameter bars**	**kg**			-
					-
	Mild steel bar reinforcement to BS 4461				-
					-
G	**8mm Diameter bars**	**kg**			-
					-
	Sawn formwork : to				-
					-
H	**Vertical sides : foundation bases**	**m^2**			-
					-
I	**Ditto : columns**	**m^2**			-
					-
J	**Edges of bed : 75 - 150mm width**	**m**	**74**		
					-
K	**Soffites of projecting edge of floor bed: not exceeding 75mm girth**	**m**	**74**		
					-
L	**Vertical sides of ramp : average 250mm wide cut to profile of ramp**	**m**	**20**		
					-
M	**20 SWG Hoop iron wall tie 25mm wide x 450mm long cast**				-
	75mm into concrete and built into joint of block walling	**sum**	**1**		
					-
	Foundation Walls				-
					-
	Hard burnt clay bricks to BS 3921 (3.5N/mm^2 compressive				-

	strength) bedded and jointed in cement and sand (1:3)				**-**
	mortar.				**-**
					-
N	**230mm Wall**	**m^2**	**112**		
					-
					-
					-
	Damp proof membrane				**-**
					-
P	**1000 Gauge polythene sheet damp proof membrane : in one layer**				**-**
	with 300mm end laps: laid on blinded hardcore (m/s)	**m^2**	**171**		
	Total Carried to Collection			**Shs**	
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	Horizontal Damp proof course : hessian based bitumen felt :				
	lapped 150mm on ends laid on cement and sand (1:3) mortar				
	bed				
A	**230mm Wide : laid under walls**	**m**	**112**		
					-
	150mm Wide : laid under walls	**m**	**20**		
					-
	Plinth finishes				**-**
					-
B	**15mm Cement and sand (1:3) render : steel trowelled smooth**	**m^2**	**60**		
					-
C	**Prepare and apply three coats bituminous or other approved**				**-**
	water resistant paint to : rendered plinth walls	**m^2**	**60**		

					-
	Maintenance for excavations				-
					-
D	**Allow for upholding and maintaining sides of excavations**	**sum**	**1**		
					-
E	**Allow for keeping excavations free from surface water**	**sum**	**1**		
	Quality Control				
		sum			
F	**Tests (GCC Clause 32)**				
G	**Project sign post (bill board) with clear writing of subproject name**	**sum**			
	Environmental Mitigation				
H	**Planting 50 (Fifty) tree seedlings of selected species around the construction site as directed by the Supervising Engineer including the placing of manure and watering until the 6 months formal acceptance of the structure**	**nr.**			-
					-
I	**Planting of grass of selected species to cover 300 square metre area around the constructed as directed by the Supervising Engineer including the placing of manure and watering until the 6 months formal acceptance of the structure**	**m^2**			-
	END OF SUBSTRUCTURE				

	Total Carried to Collection			**Shs**	
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	<u>COLLECTION</u>				
	Page No. 6/33				
	Page No. 7/33				
	Page No. 8/33				

	TOTAL ELEMENT NO.1 SUBSTRUCTURES CARRIED TO BILL SUMMARY				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO 2 : BUILDING FRAME				
	Reinforced in-situ concrete class 25/20mm aggregate,				
	[mix 1:2:4]: in				
A	**Ring beam**	**m^3**	**8**		
					-
B	**Columns**	**m^3**			**-**
					-
	High yield tensile steel bar reinforcement to BS 4461 as				**-**

	described including cutting to lengths, bending, hoisting				-
	and fixing including all necessary tying wire and spacing				-
	blocks.				-
					-
C	**12mm Diameter bars**	**kg**	**502**		
					-
	Mild steel bar reinforcement to BS 4461				-
					-
D	**8mm Diameter bars**	**kg**	**235**		
					-
	Sawn formwork: to				-
					-
E	**Sides and soffites : beams**	**m^2**	**88**		
					-
F	**Vertical sides : columns**	**m^2**	**-**		-
					-
	Precast concrete : class 25/(12mm aggregate) [mix 1:2:4]				-
	units : reinforced with 250mm wide weld mesh strip : finished				-
	fair on exposed surfaces: bedded and jointed in cement and				-
	sand (1:4) mortar				-
					-
G	**325 x 75mm Cill : sunk, weathered and throated**	**m**	**16**		
					-
	Sundries				-
					-
H	**20 SWG Hoop iron wall tie 25mm wide x 450mm long cast**				-
	75mm into concrete and built into joint of block walling	**sum**	**1**		

	TOTAL ELEMENT NO.2 (BUILDING FRAME)				
	CARRIED TO BILL SUMMARY				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO 3 : WALLS				
	Hard burnt clay bricks to BS 3921 (3.5N/mm^2 compressive				
	strength) bedded and jointed in cement and sand (1:3)				
	mortar.				
A	**230mm Wall**	**m^2**	**322**		
					-
B	**150mm Wall**	**m^2**	**53**		
					-
C	**Allow for labour and materials for eaves filling in 230mm walls:**				**-**
	average 225mm high	**m**	**93**		
					-
	150mm Hard burnt clay vent bricks to BS 3921 (3.5N/mm^2				**-**
	compressive strength) bedded, jointed and pointed in cement				**-**
	and sand (1:3) mortar in				**-**
					-

D	**Vent : size 230 x 450mm**	**nr**	**6**		
					-
	150mm Hard burnt clay vent bricks to BS 3921 (3.5N/mm^2				**-**
	compressive strength) bedded, jointed and pointed in cement				**-**
	and sand (1:3) mortar in				**-**
					-
E	**Allow for the Construction of a fire place to Architects detail**				**-**
	including flue pipes, chimney stacks	**sum**			**-**
					-
F	**Allow for the Construction of Wardrobes to Architects Detail including**				**-**
	shelves, shutters and locking devices	**sum**			**-**

	TOTAL ELEMENT NO.3 (WALLS)				
	CARRIED TO BILL SUMMARY				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO 4 : ROOF				
	Structural timbers:				
	Sawn cypress or other approved: pressure impregnated				
	with Tanalith or other approved				
	The following in 14No. Truss : 6460mm clear span x 1670mm				
	rise : nailed together, hoisted and fixed 3.0m above ground				
A	**150 x 50mm Rafter**	**m**	**124**		
					-
B	**100 x 50mm Struts/Ties**	**m**	**138**		
					-
C	**150 x 50mm Tie beam**	**m**	**100**		
					-
	[End of 14no. Truss]				**-**
					-
D	**75 x 50mm Purlins**	**m**	**320**		
					-
E	**100 x 50mm Under Purlins**	**m**			**-**
					-
F	**100 x 75mm Wall plate**	**m**	**75**		

	TOTAL ELEMENT NO.4 (ROOF STRUCTURE)				
	CARRIED TO BILL SUMMARY				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO 5 : WINDOWS				
	Purpose made steel casement to BS 990 : frames and glazing				
	primed with one coat red oxide primer before fixing :				
	complete with fixing lugs built into walls				

A	**Window size W1 1500 x 1500mm high overall : comprising 300mm**				
	high steel louvred vent for full width : 2No side hung opening sash				
	size 500 x 1200mm : all divided in panes 0.1 - 0.5mm^2.	**nr**	**8**		
					-
B	**Ditto but Window W2 size : 600 x 1000mm high overall : comprising 300mm high steel louvred vent for full width : 1No. top-hung opening middle sash and 1No. Fixed bottom sash size 350mm x 600mm : all divided in panes 0.1 - 0.5mm2**	**nr**	**8**		
					-
C	**Ditto but Window size W7pv : 900 x 900mm high overall : comprising 300mm high steel louvred vent for full width : 2No side hung opening and 1No. fixed sash size 300mm x 600mm : all divided in panes 0.1 - 0.5mm2**	**nr**			**-**
					-
D	**Ditto but window W9pv size 600 x 600mm high**	**nr**			**-**
					-
	<u>Iron mongery and matching fixings</u>				**-**
					-
E	**Fastener**	**nr**	**24**		
					-
F	**Stay**	**nr**	**24**		
					-
	<u>Ordinary quality (OQ) clear sheet glass and glazing</u>				**-**
					-
G	**4mm Glass : Glazing to metal casement panes 0.1 - 0.5mm^2 with**				**-**
	tropical glazing putty	**m^2**	**20**		
					-
	<u>Painting</u>				**-**
					-
	Prepare touch up primer and apply one coat undercoat and				**-**
	two finishing coats of gloss oil paint : on metal				**-**
					-
H	**Glazed casement windows (measured flat both faces)**	**m^2**	**46**		
					-
	Prepare touch up primer and apply one coat				**-**

	undercoat and				
	two finishing coats of gloss oil paint : on concrete				**-**
					-
I	**Window Cills : 325 x 75mm average**	**m**	**16**		
					-
	Cement and sand (1:4)				**-**
					-
J	**15mm Plaster to reveals : average 200 - 300mm wide: steel**				**-**
	trowelled smooth	**m**	**57**		
					-
	Prepare and apply three coats weather guard emulsion				**-**
	paint : to				**-**
					-
K	**Plastered surfaces of reveals 200 - 300mm wide : external**	**m**	**28**		
					-
	Prepare surfaces: apply three coats vinyl silk soft white				**-**
	emulsion paint: on steel trowelled plaster: to				**-**
					-
L	**Plastered surfaces of reveals 200 - 300mm wide : internal**	**m**	**28**		
					-
	Curtain Boxes				**-**
					-
M	**Pelmet box comprising 150 x 25mm Fascia, 125 x 25mm top 150 x 125 x 25mm stopped ends jointed together, complete with and including I-section aluminium curtain rail with rollers**	**m**	**22**		
	TOTAL ELEMENT NO.5 (WINDOWS)				
	CARRIED TO BILL SUMMARY				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO 6 : DOORS				
	Purpose made steel door : Door frame profiles sections framing and clad faced/fabricated with 1.5mm steel plates : complete with hinges, frame and fixing lugs built into wall.				

A	**Door type D1: 45mm casement-type door and frame : size 1000 x 2400mm high overall : comprising 300mm high steel louvred vent for full width : double door shutter size 500 x 2100mm high**	**nr**	**4**		
					-
	Door type D2: 45mm Metallic solid door and frame : size 900 x 2400mm high overall : comprising 300mm high steel louvred vent for full width : door shutter size 900 x 2100mm high	**nr**	**4**		
					-
	150 x 45 Frames in selected hardwood kept clean for stained				**-**
	finishes				**-**
					-
B	**Frame size 900 x 2400mm high with 50 x 15 door stop and transom**	**nr**	**16**		
					-
	Flush door: 45mm thick solid core, faced with MR quality				**-**
	plywood for painting, hardwood lippings to edges				**-**
					-
C	**Door type D3: 850 x 2050mm**	**nr**	**12**		
					-
	Knot prime stop and apply one coat undercoat and two				**-**
	finishing coats gloss oil paint on wood				**-**
					-
D	**Wooden surfaces**	**m^2**	**61**		
					-
E	**Prepare touch up primer and apply one undercoat and two**				**-**
	finishing coats of gloss oil paint: glazed metal doors	**m^2**	**37**		
					-
	Supply and fix: English "Union" or other equal				**-**
	approved ironmongery: matching screws: locks to include				**-**
	a set of 3 keys. (Prices of locks to be inclusive of handles)				**-**
					-
F	**38mm Diameter rubber door stops appropriately screwed to walls of floors**	**nr**	**24**		
					-

G	**Steel casement locks**	**nr**	**8**		
					-
H	**Mortice locks**	**nr**	**16**		
					-
					-
	Cement and sand (1:4)				**-**
					-
I	**15mm Plaster to reveals : average 200 - 300mm wide: steel**				**-**
	trowelled smooth	**m**	**138**		
					-
	Prepare and apply three coats weather guard emulsion				**-**
	paint : to				**-**
					-
J	**Plastered surfaces of reveals 200 - 300mm wide : external**	**m**	**69**		
					-
	Prepare surfaces: apply three coats vinyl silk soft white				**-**
	emulsion paint: on steel trowelled plaster: to				**-**
					-
K	**Plastered surfaces of reveals 200 - 300mm wide : internal**	**m**	**69**		
					-
	Prepare and apply three coats of polyurethane lacquer: on woodwork				**-**
					-
M	**General surfaces of pelmet boxes**	**m^2**	**7**		
	TOTAL ELEMENT NO.6 (DOORS)				
	CARRIED TO BILL SUMMARY				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO 7 : FLOOR FINISHES				
	Cement and sand (1:4)				

A	**30mm thick paving**	**m^2**	**141**		
B	**100 x 25mm Skirt : square top and coved junction at bottom**	**m**			
	Prepare surfaces: apply three coats vinyl silk soft white				
	emulsion paint: on steel trowelled plaster: to				
C	**General surfaces : 75 - 150mm width in skirting**	**m**			
	Polished ceramic coloured tiles; bedding and jointing in cement /adhesive mortar (1:4); grouting joints with matching coloured cement; 500 x 500 x 10 mm thick;				
A1	**To floors and verandas generally;**	**m^2**	**141**		
A2	**Ditto but non-slip type for bathrooms**	**m^2**	**8**		
B1	**To skirtings; 100 mm high and 10mm thick**	**m**	**196**		
	Ceiling Finishes				
	Sawn cypress or other equal approved including necessary suspension system: well seasoned cellcured: selected and kept clean				
D	**100 x 50 ceiling battens at perimeter, plugged**	**m**	**246**		
					-
E	**Ceiling brandering 100 x 50 mm members one way set into timber truss and tie members and 100 x 50 members at 600 centres other way**	**m**	**389**		
					-
F	**Supply and fix 600 x 600 mm access panel with sides cut bavelled to**	**nr**	**4**		
	45 degrees and fixed on and including painting to all exposed surfaces				**-**
					-
G	**9 x 24 SWG galvanized expanded metal lathing U-nailed to timber branderings**	**m^2**	**144**		

					-
H	**Cement and sand (1:4) pricking course to metal lathing**	**m^2**	**144**		
					-
I	**12mm cement and sand plaster to ceiling**	**m^2**	**144**		
					-
J	**Extra for 150 x 20mm thick cement and sand (1:3) cornice**	**m**	**246**		
					-
J	**Prepare and apply three coats of plastic emulsion paint plastered ceiling**	**m^2**	**144**		
					-
K	**Ditto but cornice**	**m**	**202**	**3,500**	**707,000**
	-				
	TOTAL ELEMENT NO.7 (FLOOR FINISHES)				
	CARRIED TO BILL SUMMARY				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO 8 : WALL FINISHES				
	<u>External wall finishes</u>				
	<u>Cement and sand (1:4)</u>				
A	**20mm Render in two coats : wood float finished first coat and final coat tyrolean (rough cast) finish**	**m^2**	**154**		
					-
B	**Ditto 300 x 10mm Rendered skirt but finished smooth with steel trowel**	**m**	**80**		

					-
	Prepare surfaces: apply three coats weather guard emulsion paint				-
					-
C	**Rendered surfaces : walls**	**m^2**	**154**		
					-
	Prepare and apply three coats bituminous paint on				-
					-
D	**Skirt**	**m**	**80**		
					-
	Internal wall finishes				-
					-
	Cement/lime putty/sand (1:2:9):				-
					-
E	**15mm Plaster to : Walls and Concrete surfaces : steel**				-
	trowelled smooth.	**m^2**	**544**		
					-
	Prepare surfaces: apply three coats vinyl silk soft white				-
	emulsion paint: on steel trowelled plaster: to				-
					-
F	**Walls and concrete surfaces internally**	**m^2**	**544**		
	Polished ceramic coloured tiles; bedding and jointing in cement /adhesive mortar (1:4); grouting joints with matching coloured cement; 300 x 150 x 6 mm thick;				
G	**To walls of Stores up to 2.1m high**	**m^2**	**15**		
H	**Provide and fix marble plaque size 600mm x 600mm engraved with writings (wordings shall be issued to the contractor by the project manager)**	**No.**	**1**		

	TOTAL ELEMENT NO.8 (WALL FINISHES)				
	CARRIED TO BILL SUMMARY				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO 9 : ROOF FINISHES				
	Prime grade joinery timber: wrot pine				
A	**225 x 20mm Fascia and barge board**	**m**	**89**		
	26 Gauge pre-coated brick red corrugated galvanised iron roofing sheets fixed: 1 1/2 corrugations side laps: fixed to timber purlins (m/s) with galvanised iron drive screws with washers.				
B	**Roof covering**	**m^2**	**235**		
C	**Matching ridge caping**	**m**	**27**		
	Knot prime stop and apply one coat undercoat and two				

	finishing coats gloss oil paint on wood				
D	**Surfaces 200 - 300mm girth : fascia and barge boards**	**m**	**89**		

	TOTAL ELEMENT NO.9 (ROOF FINISHES)				
	CARRIED TO BILL SUMMARY				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO 10 : ROOF WATER DRAINAGE				
	Supply and fix : rainwater disposal system				
	uPVC Gutter to BS 4576				
A	**110mm Streamline gutter complete with gutter unions fascia**				
	clips for fixing to fascia	**m**	**53**		
	Extra over gutter for :				
B	**110mm Gutter angles**	**nr**			
C	**110mm Stop ends**	**nr**	**4**		
D	**110 x 75mm Gutter outlets**	**nr**	**4**		
	uPVC Down pipe to BS 4576				
E	**80mm Diameter rain water down pipe : clipped to walls with**				
	approved holder bats	**nr**	**4**		
	Extra over down pipe for :				
F	**Bend : 80mm x 90º.**	**nr**	**24**		
G	**100mm Shoe**	**nr**	**4**		
	The following in 2No 5,000L rainwater storage tank				
	Tank base				
H	**Excavate top vegetable soil average 150mm deep**	**m^2**			

	and cart to spoil		**18**		
I	**Anti-termite treatment to : sides and bottoms of foundations**	**m^2**	**28**		
J	**Ditto : blinded surfaces of hardcore**	**m^2**	**12**		
K	**Excavate foundation trenches: not exceeding 1.5m deep :**				
	commencing from stripped level	**m^3**	**6**		
					-
L	**Return, fill and ram : selected excavated materials around**				**-**
	foundations: in 200mm layers compacted to 95% MDD.	**m^3**	**2**		
					-
M	**Surplus excavated material : Load up, cart, deposit, spread and**				**-**
	level on site where directed.	**m^3**	**4**		
					-
N	**125mm Murram filling : well watered and compacted to 95%**				**-**
	MDD 95% : to make up levels under floor bed	**m^2**	**12**		
					-
O	**150mm Hardcore bed : in broken stone blinded with and**				**-**
	including 20mm layer of approved blinding ; under floor bed	**m^2**	**12**		
					-
P	**Plain concrete class 15/20mm aggregate, (mix 1:3:6) in :**	**m^3**	**2**		
	foundation in trenches				**-**
					-
Q	**Ditto : 100mm Floor bed**	**m^2**	**18**		
	Total Carried to Collection				

Item	Description	Unit	Qty	Rate (UgShs)	Amount (UgShs)
A	Sawn form work to : edges of bed : 75 - 150mm width	m	14		
					-
B	230mm Wall : built to a radius of 1.07m : in hard burnt clay bricks				-
	bedded and jointed in cement and sand (1:4) mortar	m^2	8		
					-
C	15mm Cement and sand (1:4) render : steel trowelled smooth	m^2	8		
					-
D	5,000 Litre HDPE water tank	nr	2		
					-
E	12mm Diameter Bip tap : complete with a stop valve	nr	2		
					-
F	300mm x 12mm Diameter overflow pipe	nr	2		
					-
G	1700mm x 12mm Diameter pipe : Wash out complete with stop				-
	valves	nr	2		
	Total Carried to Collection			Shs	
	COLLECTION				
	Page No. 18/33				
	Page No. 19/33				

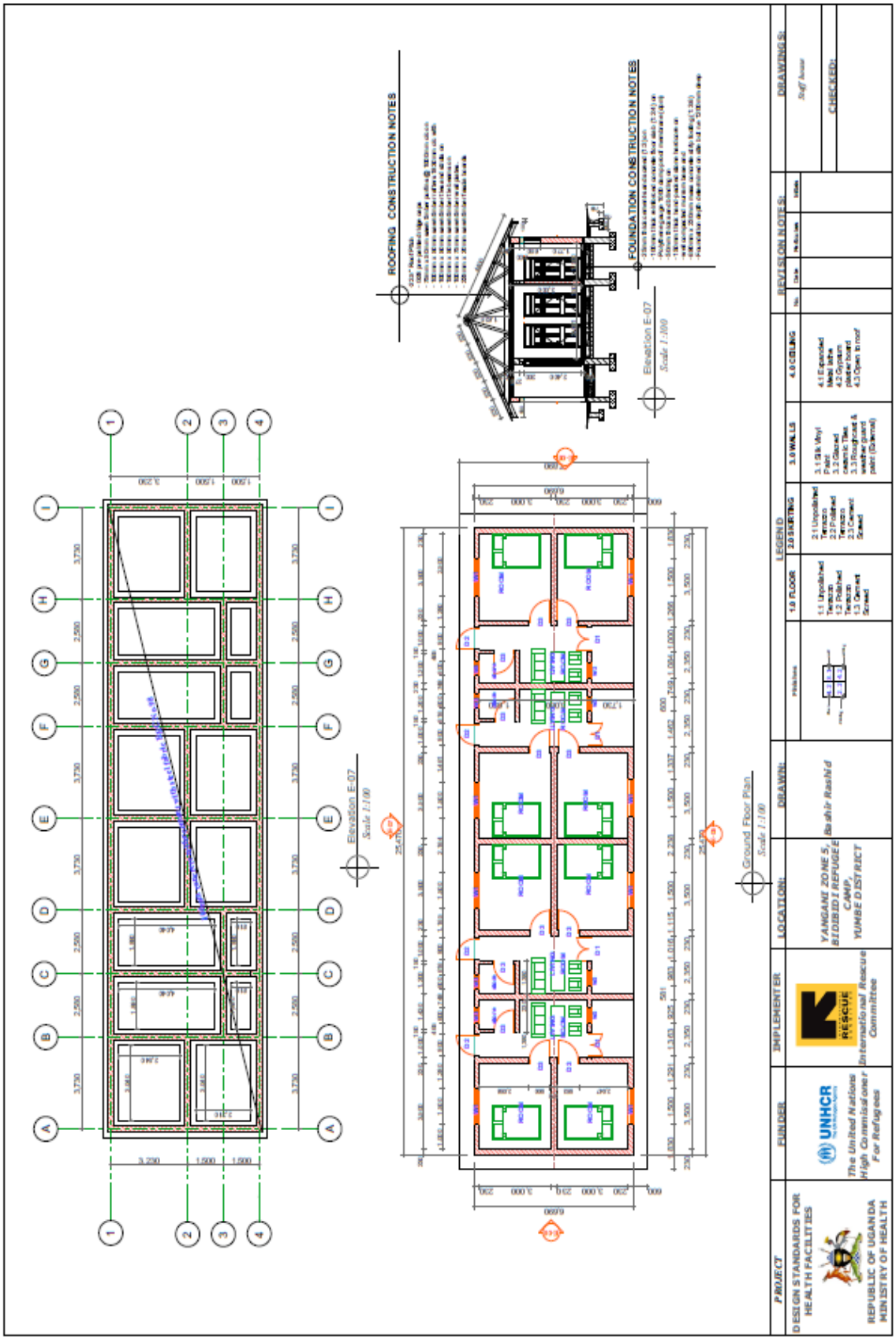
	TOTAL ELEMENT NO.10 (ROOF WATER DRAINAGE)				
	CARRIED TO BILL SUMMARY				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO 11 : LIGHTNING PROTECTION				
	<u>Supply, install, connect and set to work the following, all</u>				
	<u>as described in the Specifications and Drawings</u>				
	<u>Earthing</u>				
A	**Inspection chamber : size 300mm x 300mm internal dimension :**				
	complete with lid.	**nr**	**2**		
	<u>Lightning Protection</u>				

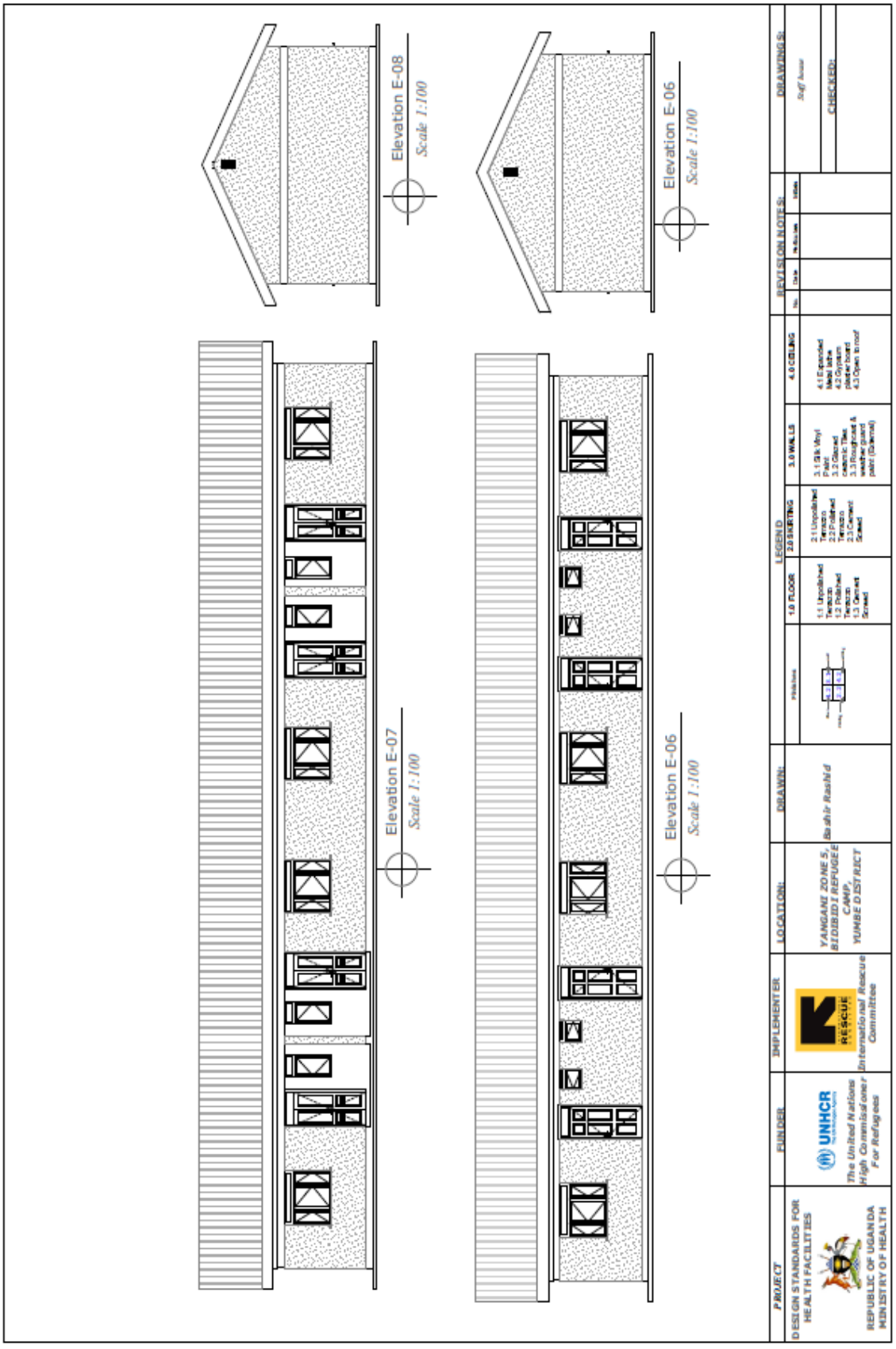
B	**25mm x 3mm Copper tape.**	**m**	**16**		
C	**25mm x 3mm Aluminium tape.**	**m**	**12**		
D	**1200mm x 20mm Solid Copper bond earth rod : complete with**				
	couplers and driving tips	**nr**	**2**		
E	**Bi-metallic connector.**	**nr**	**2**		
F	**Type A rod to clamp.**	**nr**	**2**		
G	**25mm x 3mm Copper square test clamp.**	**nr**	**2**		
H	**Air terminals complete with tape adapter and all accessories**	**nr**	**2**		

	TOTAL ELEMENT NO.11 (LIGHTNING PROTECTION)				
	CARRIED TO BILL SUMMARY				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	ELEMENT NO. 12				
	ELECTRICAL INSTALLATION				
	Supply, install, connect and set to work the following, all as described in the Specifications and Drawings.				
	Power Supply				
A	**100A 6-Way SPN MCB Consumer Unit flush mounting complete with integral isolator, MCBs and all accessories as MEM, CRABTREE or equal approved.**	**no**			
B	**Supply Cable 16mm^2 x 3core PVC/SWA/PVC Copper cables in 25mm PVC concealed conduits complete with terminations clipping and all accessories from UEDCL meter to the consumer Unit above.**	**m**			
C	**Adaptable box to contain UEDCL meter and cutouts.**	**no**			
D	**Main Earth at adaptable box by 25mm^2 PVC copper cables to copper electrode in manhole complete with all accessories.**	**item**			
E	**Provisional Sum for UEDCL Power Connections**	**item**			
	Lighting				
F	**Lighting points wired by 1.5mm^2 twin with earth PVC-I copper cables in existing 20mm pvc conduits.**	**no**	**30**		

G	**1x11W energy saving solar bulb fitting complete with all accessories as Thorn or equal approved.(F1)**	**no**	**24**		
J	**6A 1 gang 1 way moulded switch as MK or approved equal.**	**no**	**18**		
K	**6A 1 2gang 1 way moulded switch as MK or approved equal.**	**no**	**2**		
	Sockets				
L	**Socket outlet point wired by 2.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits and all accessories.**	**no**	**8**		
M	**13A 2gang switched socket outlet as MK, in MK boxes complete with all accessories.**	**no**	**8**		
	Total Carried to Collection				
Item	**Description**	**Unit**	**Qty**	**Rate (UgShs)**	**Amount (UgShs)**
	Solar Power.				
	Solar Power Supply				
N	**Solar Panel, with Peak power of 120W, Max.Current of 4.5A, Max. Voltage of 17V DC, Short circuit current of 4.8A, Open circuit voltage of 21.4V DC, as SIEMENS SP75, BP SOLAR BP 275 or equal approved.**	**no**	**6**		
O	**Steel supporting structure for solar panels mounted on the roof at an Optimum tilt angle to be determined by site location, complete with brackets and all accessories.**	**no**	**1**		
P	**63A 6-Way SPN MCB Consumer Unit flush mounting complete with integral isolator, MCBs and all accessories as MEM, CRABTREE or equal approved.**	**no**	**1**		
Q	**Charge Regulator with System voltage 12V / 24V DC, Max Module and Load Current of 12A, Article No. B01.548 as by Steca GmbH Memmingen (Germany) or equal approved.**	**no**	**1**		

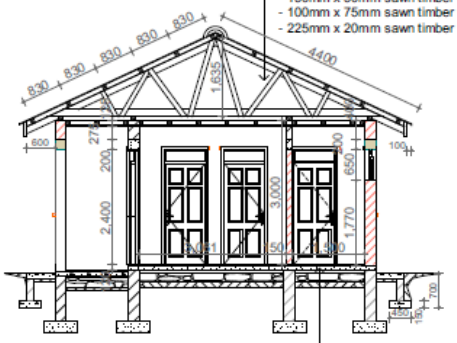
R	**Inverter of Max. DC Power of 1960W, Max. Current of 14A DC / AC, Max Voltage at no load of 175V DC, as GRUDFOS (Germany) SA 1500 v03 or equal approved.**	**no**	**1**		
S	**Deep Cycle Maintenance Free Solar Batteries, of 200AH, 12V / 24V, as DELCO 2000 by Steca GmbH Memmingen (Germany) or equal approved.**	**no**	**4**		
T	**Battery cable with fuse and interconnecting cables to Consumer unit.**	**item**	**1**		
U	**Earth installation by 25mm^2 PVC copper cables to copper electrode in manhole complete with all accessories.**	**item**	**1**		
V	**Supply Cable 16mm^2 x 3core PVC/SWA/PVC Copper cables in 25mm PVC concealed conduits complete with terminations clipping and all accessories from battery battery bank to Solar power Consumer Unit CU2.**	**m**	**15**		
W	**1 x 18W 600mm single waterproof, surface mounted fluorescent light fitting with GRP body and acrylic diffuser, as Thorn or equal approved (F3).**	**no**			
X	**1 gang 1 way 6A moulded switch as MK or approved equal.**	**no**			
Y	**Socket outlet point wired by 2.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits to supply the solar powered fridge**	**no**			
Z	**13A 2gang flush socket outlet as MK, in MK boxes complete with all accessories.**	**no**			
	Total Carried to Collection				
	COLLECTIONS				
	Total carried to collections 1/12				
	Total carried to collections 2/12				
	TOTAL ELEMENT NO. 12 (POWER AND LIGHTING) CARRIED TO BILL SUMMERY				


ROOFING CONSTRUCTION NOTES
FOUNDATION CONSTRUCTION NOTES
Elevation E-07
Scale 1:100
Ground Floor Plan
Scale 1:100
Elevation E-07
Scale 1:100
LEGEND
1.0 FLOOR
2.0 SKIRTING
3.0 WALLS
4.0 CEILING
REVISION NOTES:
DRAWINGS:
CHECKED:
DRAWN:
Bashir Rashid
LOCATION:
YANGANI ZONE 5, BIDIBIDI REFUGEE CAMP, YUMBE DISTRICT
IMPLEMENTER
International Rescue Committee
FUNDER
The United Nations High Commissioner For Refugees
PROJECT
DESIGN STANDARDS FOR HEALTH FACILITIES
REPUBLIC OF UGANDA
MINISTRY OF HEALTH


Elevation E-08
Scale 1:100
Elevation E-06
Scale 1:100
Elevation E-07
Scale 1:100
Elevation E-06
Scale 1:100
PROJECT
DESIGN STANDARDS FOR HEALTH FACILITIES
REPUBLIC OF UGANDA MINISTRY OF HEALTH
FUNDER
UNHCR
The United Nations High Commissioner For Refugees
IMPLEMENTER
International Rescue Committee
LOCATION:
YANGANI ZONE 5, BIDIBIDI REFUGEE CAMP YUMBE DISTRICT
DRAWN:
Bashir Rashid
LEGEND
1.0 FLOOR
2.0 SKIRTING
3.0 WALLS
4.0 CEILING
REVISION NOTES:
DRAWINGS:
CHECKED:

ROOFING CONSTRUCTION NOTES

-22.5° Roof Pitch
- G28 pre-painted ridge caps
- 75mm x 50mm sawn timber purlins @ 1000mm c/c on
- 100mm x 50mm sawn timber rafters 1830mm c/c with
- 100mm x 50mm sawn timber ties and struts on
- 150mm x 50mm sawn timber tie beams on
- 100mm x 75mm sawn timber wall plates.
- 225mm x 20mm sawn timber fascia boards



Elevation E-07
Scale 1:100

FOUNDATION CONSTRUCTION NOTES

- 25mm thick cement-sand screed (1:3) on
- 100mm thick reinforced concrete floor slab (1:2:4) on
- Polythene gauge 1000 damp proof membrane (dpm)
- 50mm thick sand blinding on
- 150mm thick hand-packed stone hardcore on
- well compacted murram base and
- 690mm x 230mm mass concrete strip footing (1:3:6)
- Foundation depth determined on site but n.e 1200mm deep

PROJECT	IMPLEMENTER	FUNDER	LOCATION:	DRAWN:	LEGEND	REVISION NOTES:	DRAWINGS:
DESIGN STANDARDS FOR HEALTH FACILITIES REPUBLIC OF UGANDA MINISTRY OF HEALTH	INTERNATIONAL RESCUE COMMITTEE	UNHCR UNITED NATIONS HIGH COMMISSIONER FOR REFUGEES	SWENGA ZONE 2, YAYARI ZONE 2, YANGANI ZONE 5 IN BIDIBIDI REFUGEE CAMP YUMBE DISTRICT	BASHIR RASHID	Finishes	No. Date Particulars Initials	SECTION STAFF HOUSE CHECKED:

BILLS OF QUANTITIES: PROPOSED CONSTRUCTION OF A NUTRITION UNIT FOR HEALTH CENTRE III,

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL No. 1 NUTRITION CENTRE				
	MAIN SUMMARY		**PAGE**		
1	**PRELIMINARIES AND GENERAL ITEMS**		**4**		
2	**SUB-STRUCTURE**		**7**		
3	**SUPER-STRUCTURE**		**9**		
4	**ROOFING**		**10**		
5	**WINDOWS AND DOORS**		**13**		
6	**INTERNAL FINISHES**		**15**		
7	**EXTERNAL FINISHES**		**16**		
8	**ELECTRICAL INSTALLATION**		**18**		
	TOTAL NUTRITION CENTRE TO GENERAL SUMMARY				
	The project will be completed in ……. Calender days				
	Quotation Authorised by:				
	Name:_____				
	Position:_____				
	Authorised for and on behalf of:				
	Address:_____				

ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	
	ELEMENT No. 1				
	PRELIMINARIES AND GENERAL ITEMS				
	General				
A	**The contractor must allow for costs in his tender in respect of these preliminary and general items by pricing these items**				
	If the contractor leaves any items unpriced, he shall be deemed to have considered that the rates in the remaining items in the bills of quantities are sufficient to perform the services and obligations of these unpriced items				
	Fencing				
B	**Immediately upon taking possession of the site, the contractor will be required to erect fencing and gates for the security of his materials, plant and stores**	**ITEM**			
	Storage				
C	**The contractor must provide for the storage of the materials, plant and tools. For materials that are affected by weather, the storage sheds to be provided must be covered to keep out the rain and must be lockable**	**ITEM**	**1**		
	Program of works				
D	**A program of works MUST be provided by the contractor**				
	Building Regulations				
E	**The whole of the works shall be executed according to current building regulations and to the satisfaction of local authorities**				
	Definitions and abbreviations				
F	**The following definitions and abbreviations to denote the unit of measurement, are used throughout these bills of quantities**				

	The term "Engineer" shall mean the employer's representative (or the professional to whom the employer's representative has assigned the duty)				
	Total Carried to Collections 1/1				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
	CM to denote cubic meters				
	SM to denote square meters				
	LM to denote linear meters				
	No. to denote enumerated item				
	KG to denote kilogrammes				
	SMM to denote the Standard Method of Measurement of Building Works for East Africa, Metric 1970 edition				
	mm to denote millimeters				
	BS to denote the current British Standards three months before the date of invitation of this bid				
	Foreman				
A	**The contractor shall allow for a qualified and experienced foreman FULL-TIME on site. The employer's representative shall approve the foreman**	**ITEM**			
	Transport				
B	**The contractor shall include in his prices the transportation of materials, workmen, plant and tools, to and from site**				
	Samples				
C	**The contractor shall furnish, before commencement of works any samples or workmanship at his own cost for approval by the Engineer**				
	Sanitation				
D	**The contractor shall provide onsite, the necessary latrines for his staff and workmen to the requirements and satisfaction of the health authorities**	**ITEM**			
	Security				

E	**The contractor shall adequately safeguard the site, works, materials and plant from theft and damage by vandals**	**ITEM**			
	Plant, tools and scaffolding				
F	**The contractor shall allow for mobilization and demobilization of plant, equipment, temporary works, personnel, etc**	**ITEM**	**1**		
	Total Carried to Collections 1/2				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
	Water				
A	**The contractor shall provide for all the necessary water to execute the works at his own cost**	**ITEM**	**1**		
	Site Meetings				
B	**Site meetings shall be conducted every fortnight (14 days) chaired by the employer's representative. The contractor MUST attend all these site meetings**				
	Work at or after completion				
C	**The contractor shall allow for making good all damages**				
	Sign Boards				
D	**One sign board to be erected on a chosen site to the employer's approval. This board shall state the project, the funder, the employer (implementer), name of the supervisor and the contractor**	**ITEM**	**1**		
	Total Carried to Collections 1/3				
	-				

	COLLECTIONS				
	Total Carried to Collections 1/1				
	Total Carried to Collections 1/2				
	Total Carried to Collections 1/3				
	TOTAL PRELIMINARIES & GENERAL ITEMS				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	ELEMENT No. 2				
	SUB-STRUCTURE				
	(All provisonal)				
	Excavation and earthworks				
A	**Clear bush and excavate oversite average 150mm deep to remove vegetable soil and load and cart away from site**	**SM**	**230**		
B	**Excavate oversite to reduce levels**	**CM**	**10**		
C	**Excavate trench for strip foundations to a depth not exceeding 1.5M deep (actual depth to be determined on site)**	**CM**	**45**		
E	**Ditto but in rock ditto**	**CM**	**1**		
	Disposal of water				
F	**Allow for keeping all excavations free from water, including running water and river water by pumping or otherwise**	**ITEM**	**1**		
	Planking and Strutting				
G	**Provide all planking and strutting necessary to maintain the sides of excavations and fillings to keep the excavations clear of fallen materials, rubbish or debris**	**ITEM**	**1**		

	Disposal of excavated material				
H	**Return, fill and ram selected materials around foundations in layers not exceeding 200mm thick**	**CM**	**21**		
I	**Remove surplus excavated materials from site**	**CM**	**4**		
J	**Selected imported murram to fill around the foundation placed in 200mm layers, watered and compacted to 95% MDD**	**CM**	**15**		
	Anti-Termite treatment				
K	**Dig out and cart away all anthill nests on the whole site, destroy Queen ants and sterilize nests with Shell "Dieldrix 18" mixed with Gladiator T.C; 2% solution at the rate of 5 litres per square meter; to sides of excavations and tops of foundations generally**	**SM**	**260**		
	Total Carried to Collections 2/1				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	Hardcore filling				
L	**150mm thick bed of hardcore spread, leveled, well compacted and blinded with 50mm layer of sand**	**SM**	**85**		
	Damp proofing				
M	**1000 gauge diothene or other equal approved polythene sheeting as damp proof membrane dpm laid on blinded hardcore (measured separately) with welted joints and minimum 200mm end laps at all joints**	**SM**	**96**		
	Concrete work				
N	**Mass concrete, mix 1:4:8/19mm aggregate; blinding in foundation trenches**				
O	**Mass concrete, mix 1:3:6/20mm aggregate; in strip foundation**	**CM**	**9**		
P	**100mm thick concrete slab (mix 1:3:6/20mm aggregates) laid on damp proof membrane**	**SM**	**85**		
Q	**Ditto but in splash aprons and ramps**	**CM**	**6**		

R	**Vibrated reinforced concrete mix 1:2:4/20mm aggregates; in ground beams generally**	**CM**			
	Reinforcements				
S	**Steel fabric reinforcement to BS 4483 ref A98 weighing 1.58kg/M² in concrete floor bed with minimum300mm end and side laps**	**SM**	**85**		
T	**Mild steel reinforcement bars to BS 4449:1969; 8mm diameter**	**KG**			
U	**High tensile steel reinforcement bars to BS 4449:1969; 12mm diameter**	**KG**			
	Sawn formwork				
V	**Sawn timber formwork to edges of floor slab 175-200mm high**	**LM**	**40**		
W	**Ditto to sides of ground beam**	**LM**			
	Well burnt brickwork in cement-sand 1:4 mortar;				
X	**230mm thick walling in foundations with 25x1.2mm metal strip at every third coarse**	**SM**	**75**		
	Total Carried to Collections 2/2				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	Damp proof course				
Y	**Pluvex No. 1 or other equal approved horizontal damp proof course to BS 743; 230mm wide laid with 200mm end laps**	**LM**	**43**		
YY	**Ditto but 150mm wide**	**LM**	**7**		
	Cement and sand 1:3 render; wood floated in:-				
Z	**15mm thick render to plinth walls**	**SM**	**75**		
ZZ	**pare and apply two coats of bituminous paint on rendered surfaces of plinth walls**	**SM**	**75**		
	Total Carried to Collections 2/3				

	COLLECTIONS				
	Total Carried to Collections 2/1				
	Total Carried to Collections 2/2				
	Total Carried to Collections 2/3				
	TOTAL SUB-STRUCTURE				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	ELEMENT No. 3				
	SUPER-STRUCTURE				
	Reinforced insitu concrete class 25/20mm aggt, (mix 1:2:4) vibrated in;				
A	**Ring beams**	**CM**	**2**		
B	**Columns**	**CM**			

	High yield tensile steel bar reinforcement to BS 4461 as described including cutting to lengths, bending, hoisting and fixing including all necessary tying wire and spacing blocks.				
C	**12mm diameter bars**	**KG**	**105**		
	Mild steel bar reinforcement to BS 4461				
D	**8mm diameter bars**	**KG**	**53**		
	Sawn timber formwork to:				
E	**Sides and soffits: ring beams**	**LM**	**65**		
F	**Vertical sides: columns**	**SM**			
	Hard burnt clay bricks to BS 3921 (3.5N/mm^2 compressive strength) bedded and jointed in cement and sand (1:4) mortar.				
G	**230mm thick well burnt clay brickwall with 25x1.5mm metal strip (hoop iron) at every fourth course**	**SM**	**135**		
H	**Ditto but 150mm thick walls**	**SM**	**20**		
I	**Allow for labour and materials for eaves filling in 230mm walls:**	**LM**	**36**		
	Total Carried to Collections 3/1				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	150mm Hard burnt clay vent bricks to BS 3921 (3.5N/mm^2 compressive strength) bedded, jointed and pointed in cement and sand (1:3) mortar in				
J	**Vent : size 230 x 450mm**	**No.**	**2**		

	Galvanized steel stanchions				
L	**100mm Diameter x 3mm x 3500mm Galvanised Iron class B with bottom end welded to 110 x 110 x 6mm thick plate set in and including concrete (1:3:6) base size 200 x 200 x 200mm deep and 100 x 80 x 6mm U-plate welded on top end**	**No**	**6**		
M	**100mm thick x 600mm wide RC suspended slab for seats in the waiting area, mix 1:3:6 reinforced with fabric mesh: and suspended on 150mm thick x 370mm high stub brick walls (measured all together). The top of the slab to be finished smooth with steel trowel**	**SM**	**18**		
	Total Carried to Collections 3/2				
	COLLECTIONS				
	Total Carried to Collections 3/1				
	Total Carried to Collections 3/2				
	TOTAL SUPER-STRUCTURE				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	ELEMENT No. 4				

	ROOFING				
	Structural timbers:				
	Sawn cypress or other approved timber species: pressure impregnated with Tanalith or other approved wood preservative.				
	The following in 7No. Truss : 7700mm clear span x 1600mm rise : nailed together, hoisted and fixed 3.0m above ground.				
A	**100 x 50mm Rafters**	**LM**	**69**		
B	**100 x 50mm Struts/Ties**	**LM**	**96**		
C	**150 x 50mm Tie beam**	**LM**	**56**		
D	**100 x 50mm Purlins**	**LM**	**159**		
E	**100 x 75mm Wall plate**	**LM**	**30**		
	Prime grade joinery timber: wrot pine				
F	**225 x 20mm Fascia and barge board**	**LM**	**46**		
	28 Gauge pre-coated (employer to decide colour) profilrd galvanised iron roofing sheets, fixed 1½ corrugations side laps: fixed to timber purlins (m/s) with galvanised iron drive screws or capped rofing wire nails				
G	**Roof covering**	**SM**	**130**		
H	**Matching ridge caping**	**LM**	**14**		
	Knot prime stop and apply one coat undercoat and two finishing coats gloss oil paint on wood				
I	**Surfaces 200 - 300mm girth : fascia and barge boards**	**LM**	**46**		

	TOTAL ROOFING				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	ELEMENT No. 5				
	WINDOWS AND DOORS				
	WINDOWS				
	Precast concrete : class 25/(12mm aggt) [mix 1:2:4] units : reinforced with gauge 10 square welded mesh strip : finished fair on exposed surfaces: bedded and jointed in cement and sand (1:4) mortar				
A	**325 x 75mm Cill : sunk, weathered and throated**	**LM**	**6**		
	Purpose made steel casement to BS 990 : frames and glazing primed with one coat red oxide primer before fixing : complete with fixing lugs built into walls: This includes burglar proofing as desscribed by the employer				
B	**Window size 1500 x 1500mm high overall : comprising 300mm high steel louvred vent for full width : 2No side-hung opening sash size 500 x 1200mm : all divided in panes 0.1 - 0.5M²**	**No.**	**3**		
	Iron mongery and matching fixings				
D	**Fastener**	**No.**	**6**		
E	**Stay**	**No.**	**6**		
	Ordinary quality clear sheet glass & glazing				
F	**4mm Glass : Glazing to metal casement panes 0.1 - 0.5M² with tropical glazing putty**	**SM**	**5**		
	Painting				

	Prepare touch up primer and apply one coat undercoat and two finishing coats of gloss oil paint : on metal				
G	**Glazed casement windows (measured flat both faces)**	**SM**	**6**		
	Total carried to Collections 5/1				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	Prepare touch up primer and apply one coat undercoat and two finishing coats of gloss oil paint : on concrete				
H	**Window Cills : 325 x 75mm average**	**LM**	**6**		
	Cement and sand (1:4)				
I	**15mm Plaster to reveals : average 200 - 300mm wide: steel trowelled smooth**	**LM**	**9**		
	Prepare and apply three coats weather guard emulsion paint : to				
J	**Plastered surfaces of reveals 200 - 300mm wide : external**	**LM**	**9**		
	Prepare surfaces: apply three coats vinyl silk soft white emulsion paint: on steel trowelled plaster: to				
K	**Plastered surfaces of reveals 200 - 300mm wide : internal**				
	DOORS				
	Purpose made steel door : 135x45x1.5mm door frame sections with SHS 40x40x1.2mm framing and clad, faced / fabricated with 1.5mm steel plates : complete with hinges, frame and fixing lugs built into wall.				

L	**Size 900 x 2400mm high overall : comprising 300mm high steel louvred vent for full width : door shutter size 900 x 2100mm high**	**No.**	**3**		
	Painting				
M	**Prepare touch up primer and apply one undercoat and two finishing coats of gloss oil paint: metal doors**	**SM**	**13**		
	Total carried to Collections 5/2				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	Supply and fix: English "Union" or other equal approved ironmongery: matching screws: locks to include a set of 3 keys. (Prices of locks to be inclusive of handles)				
N	**38mm Diameter door stops**	**No.**	**3**		
O	**Steel casement locks**	**No.**	**3**		
	Cement and sand (1:4)				
P	**15mm Plaster to reveals : average 200 - 300mm wide: steel trowelled smooth**	**LM**	**18**		
	Prepare and apply three coats weather guard emulsion paint : to				
Q	**Plastered surfaces of reveals 200 - 300mm wide : external**	**LM**	**18**		
	Prepare surfaces: apply three coats vinyl silk soft white emulsion paint: on steel trowelled plaster: to				
R	**Plastered surfaces of reveals 200 - 300mm wide : internal**				

	-				
	-				
	-				
	-				
	COLLECTIONS				
	Total Carried to Collections 5/1				
	Total Carried to Collections 5/2				
	TOTAL WINDOWS AND DOORS				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	ELEMENT No. 6				
	INTERNAL FINISHES				
	Wall Finishes				
	Mortar; Cement- Sand mix (1:4); Plaster; 10 mm first coat of cement and sand (1:6); 3 mm second coat of cement and lime putty (1:10); steel trowelled; 13 mm thick				
A	**13mm plaster to brick wall.**	**SM**	**169**		
B	**13mm plaster to sides and soffite of beams**	**SM**			
C	**Window and door jambs over 200mm but not exceeding 300mm girth.**	**LM**			
D	**Ditto but in 13mm x 75mm ceiling cornice.**	**LM**			

	Prepare and apply one undercoat and two finishing coats of silk vinyl emulsion paint on :-				
E	**Plastered walls**	**SM**	**169**		
F	**Beams**	**SM**			
	Ceiling Finishes				
G	**Supply and fix 100mm x 50mm sawn timber joist and branderings at 600mm centres either way.**	**LM**	**89**		
H	**13mm thick Cellotex ceiling softboards; appropriately nailed to ceiling structure with approved nails as directed by the employer**	**SM**	**22**		
I	**Extra over for a 600 x 600mm ceiling access timber panel with sides cut Beveled and fixed on and including Painting to exposed surfaces.**	**No**	**1**		
J	**Extra over for a moulded cornice; 75x13mm**	**LM**	**33**		
K	**Prepare, prime and paint one undercoat and two coats of emulsion paint on ceiling internally.**	**SM**	**22**		
	Total carried to Collections 6/1				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	Floor Finishes				
	Supply and fix the following terrazzo : mechanically polished to finished smooth : including plastic division strips at 2000mm centres.				
L	**32mm Thick terrazzo**	**SM**	**86**		
M	**25 x 100mm skirting with square top edge and coved junction at bottom.**	**LM**	**58**		

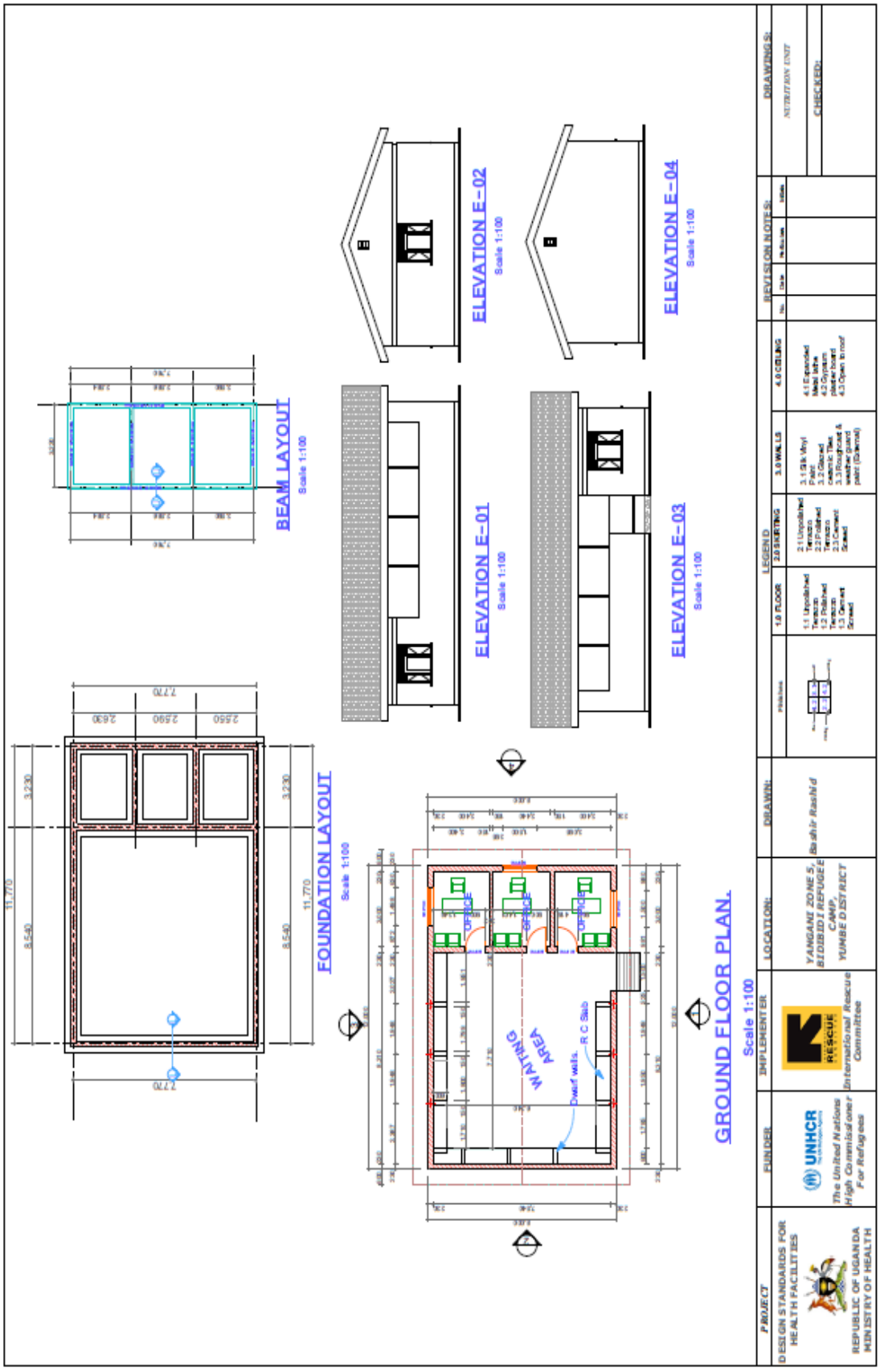
	Total carried to Collections 6/2				
	COLLECTIONS				
	Total carried to Collections 6/1				
	Total carried to Collections 6/2				
	TOTAL INTERNAL FINISHES				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	ELEMENT No. 7				
	EXTERNAL FINISHES				
	Mortar; cement and sand (1:4)				

A	**15mm rendering in two coats; finished with wooden float and then tyrolean applied generally to walls.**	**SM**	**104**		
B	**Ditto; to beams**	**SM**			
	Painting and Decorating				
	Prepare and apply three coats weatherguard emulsion paint to :				
C	**To rendered brick wall.**	**SM**	**104**		
	TOTAL EXTERNAL FINISHES				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**		
	ELEMENT No. 8				

	ELECTRICAL INSTALLATION				
	Supply, install, connect and set to work the following in approved materials;				
	Lighting				
A	**Lighting points wired by 1.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits.**	**No**	**7**		
B	**1 x 36W 1200mm single bare batten fluorescent fitting complete with daylight tube switch start and all accessories as Thorn or equal approved.(F1)**	**No**	**5**		
C	**1 x 18W 600mm single waterproof, surface mounted fluorescent light fitting with GRP body and acrylic diffuser, as Thorn or equal approved (F3).**	**No**	**2**		
D	**6A 1 gang 1 way moulded switch as MK or approved equal.**	**No**	**5**		
	Sockets				
E	**Socket outlet point wired by 2.5mm^2 twin with earth PVC-I copper cables in 20mm pvc conduits complete with all accessories.**	**No**	**3**		
F	**13A 2gang switched socket outlet as MK, in MK boxes complete with all accessories.**	**No**	**3**		
	Solar Power.				
	Solar Power Supply and Lighting				
G	**Solar Panel, with Peak power of 120W, Max.Current of 4.5A, Max. Voltage of 17V DC, Short circuit current of 4.8A, Open circuit voltage of 21.4V DC, as SIEMENS SP75, BP SOLAR BP 275 or equal approved: cost to include securely anchoring the panels on top of the roof sheets**	**No**	**2**		
H	**4Way SPN MCB Consumer Unit as MEM or equal approved.**	**No**	**1**		

	TOTAL CARRIED TO COLLECTIONS 8/1				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
I	**Charge Regulator with System voltage 12V / 24V DC, Max Module and Load Current of 12A, Article No. B01.548 as by Steca GmbH Memmingen (Germany) or equal approved.**	**no**	**1**		
J	**Inverter of Max. DC Power of 1250W, Max. Current of 14A DC / AC, Max Voltage at no load of 175V DC, as GRUDFOS (Germany) SA 1500 v03 or equal approved.**	**no**	**1**		
K	**Deep Cycle Maintenance Free Solar Batteries, of 200AH, 12V / 24V, as DELCO 2000 by Steca GmbH Memmingen (Germany) or equal approved.**	**no**	**2**		
L	**Battery cable with fuse and interconnecting cables to Consumer unit.**	**item**	**1**		
M	**Earth installation by 25mm^2 PVC copper cables to copper electrode in manhole complete with all accessories.**	**item**	**1**		
N	**Supply Cable 16mm^2 x 3core PVC/SWA/PVC Copper cables in 25mm PVC concealed conduits complete with terminations clipping and all accessories from battery battery bank to Solar power Consumer Unit CU2.**	**m**	**15**		
	TOTAL CARRIED TO COLLECTIONS 8/2				

	COLLECTIONS				
	TOTAL CARRIED TO COLLECTIONS 8/1				
	TOTAL CARRIED TO COLLECTIONS 8/2				
	TOTAL ELECTRICAL INSTALLATION				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Scale 1:100
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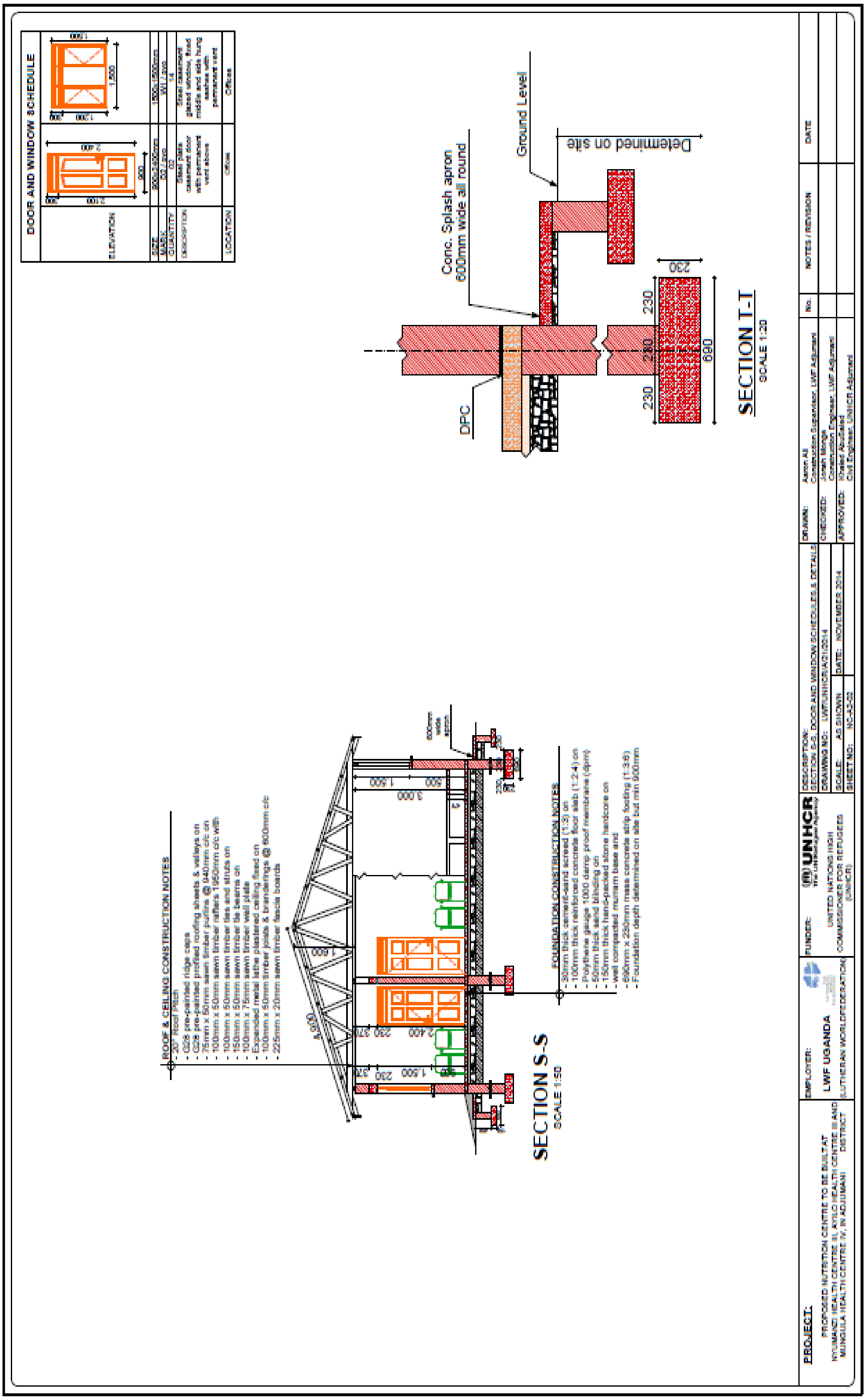
Scale 1:100
ELEVATION E-01
Scale 1:100
ELEVATION E-03
Scale 1:100
BEAM LAYOUT
Scale 1:100
FOUNDATION LAYOUT
Scale 1:100
GROUND FLOOR PLAN.
Scale 1:100
OFFICE
OFFICE
OFFICE
WAITING AREA
R C Slab
Dwarf walls
LEGEND
1.0 FLOOR
2.0 SKIRTING
3.0 WALLS
4.0 CEILING
DRAWN:
Bashir Rashid
LOCATION:
YANGANI ZONE 5,
BIDEBIDI REFUGEE CAMP,
YUMBE DISTRICT
IMPLEMENTER
International Rescue Committee
FUNDER
The United Nations High Commissioner For Refugees
PROJECT
DESIGN STANDARDS FOR HEALTH FACILITIES
REPUBLIC OF UGANDA
MINISTRY OF HEALTH
REVISION NOTES:
DRAWINGS:
NUTRITION UNIT
CHECKED:


DOOR AND WINDOW SCHEDULE
Conc. Splash apron
600mm wide all round
Ground Level
Determined on site
DPC
230
690
SECTION T-T
SCALE 1:20
SECTION S-S
SCALE 1:50
UNHCR
LWF UGANDA