



# **HABITAT FOR HUMANITY MALAWI**

**DRILLING WORKS FOR ONE GROUNDWATER  
MONITORING WELL IN T/A  
MASUMBANKHUNDA, LILONGWE DISTRICT.**



**To: Whom it may concern**

Date: 26<sup>th</sup> January 2024

Dear Sir/Madam,

**REQUEST FOR BIDS: HFHM/BMZ6/2023/022**

1. Habitat for Humanity Malawi (HFHM) in partnership with the German Government and Habitat for Humanity Germany invites your firm to submit a priced quotation for:  
**PROVISION OF 1 NO. NEW DRILLED WELL FOR GROUND WATER MONITORING IN T/A MASUMBANKHUNDA, LILONGWE DISTRICT.**
2. Full details of this procurement are given in the Instructions to Bidders and section 6A (scope of work) and section 6C (Drawings) of this Invitation to Bid.
3. Please submit your quotation using the Letter of Submission of Bid format **as in section 4 (bidding Forms)** and including all the information requested in the Instructions to Bidders in a sealed envelope, addressed to HFHM, at the address in 7 below before 14:00 hours on 13<sup>th</sup> February 2024.
4. Prices should be quoted with **VAT** and in Malawi Kwacha.
5. Delivery of services is **within 10 Calendar Days** of contract signature.
6. Address for bid submission: Please clearly label your sealed bid envelope as indicated in the address below and deposit the sealed bid in HFHM Tender box.

**HFHM/BMZ6/2024/027/Lot1**

**Habitat for Humanity Malawi, Off presidential drive,**

**Next to Pacific Villas**

**P.O Box 1638, Lilongwe, MALAWI**

7. For inquiries please email: [inquiries@habitat.mw](mailto:inquiries@habitat.mw)

Yours faithfully

Atuweni-tupochile Agbermodji,

**Board Chairperson- HFHM**

Attachments: Part 1: Bidding Procedures  
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## **PART 1 BIDDING PROCEDURES**

### **Section 1: Instructions to Bidders**

#### **1. Scope of Bid**

- 1.1 The Procuring Entity indicated in the Bid Data Sheet (BDS), invites bids for the construction of Works, as described in Section 6, Schedule of Requirements. The subject and procurement reference number are provided in the Bid Data Sheet.
- 1.2 The successful Bidder will be expected to complete the Works by the Intended Completion Date specified in the Bid Data Sheet.

#### **2. Eligible Bidders**

- 2.1 A bidder must:
  - (a) have the legal capacity to enter into a contract;
  - (b) not be insolvent, in receivership, bankrupt or being wound up, not have had their business activities suspended and not be the subject of legal proceedings for any of the foregoing; and
  - (c) have fulfilled all obligations to pay taxes according to the tax laws of Malawi.
- 2.2 To demonstrate compliance with the criteria a Bidder shall submit with its Bid copies of:
  - (a) its certificate of Contractor Registration from the National Construction Industry Council;
  - (b) tax clearance certificates or equivalent for the last financial year; and
  - (c) other appropriate documentary evidence demonstrating its compliance.
- 2.3 A Bidder that has been debarred from participating in public procurement in accordance with ITB Sub-Clause 17.4, at the date of the deadline for bid submission or thereafter, shall be disqualified.
- 2.4 To qualify for award of the Contract, bidders shall meet the minimum qualifying criteria specified in Section 3, Evaluation and Qualification Criteria.
- 2.5 Bidders applying for eligibility for a margin of preference in bid evaluation, if permitted in the Bid Data Sheet, shall supply all information to satisfy the criteria for eligibility as described in Section 3, Evaluation and Qualification Criteria.

#### **3. Documents Comprising the Bid**

- 3.1 The Bid submitted by the Bidder shall comprise the following, in the format indicated in

Section 4, Bidding Forms, where appropriate:

- (a) Bid Submission Form;
- (b) Priced Bill of Quantities and Activity Schedule;
- (c) Qualification Information Form and Documents; and
- (d) any other document or information required to be completed and submitted by bidders, as specified in the BDS.

#### **4. Bid Prices**

4.1 The Contract will be a Lump Sum Contract, as indicated in the Bid Data Sheet.

4.2 The Contract shall be for the whole Works, based on the:

- (a) Priced Bill of Quantities submitted by the Bidder
- (b) Activity Schedule submitted by the Bidder.

4.3 Bids shall cover all costs of labour, materials, equipment, overheads, profits including all associated cost for performing the works. All duties, taxes, and other levies payable by the Contractor under the Contract, shall be included in the rates, prices and total Bid price (or in the case of a lump sum contract, in the total bid price) submitted by the Bidder.

#### **5. Currencies of Bid and Payment**

5.1 The unit rates and prices (or in the case of a lump sum contract, the lump sum price) shall be quoted by the Bidder and paid entirely in Malawi Kwacha.

#### **6. Bid Validity**

6.1 Bids shall remain valid for the period specified in the BDS.

#### **7. Bid Security**

7.1 The Bidder shall **NOT** submit a Bid Security.

#### **8. Sealing and Marking of Bids**

8.1 The Bidder shall seal the original and all copies of the Bid in two inner envelopes and one outer envelope, duly marking the inner envelopes as “ORIGINAL” and “COPIES”.

8.2 The inner and outer envelopes shall:

- (a) be addressed to the Procuring Entity at the address provided in the BDS;
- (b) bear the name and procurement reference number of the Contract as defined in the BDS and SCC; and
- (c) provide a warning not to open except in the presence of the Internal Procurement Committee and not to be opened before the specified time and date for Bid opening as defined in the BDS.

8.3 In addition to the identification required in Sub-Clause 9.2, the inner envelopes shall indicate the name and address of the Bidder to enable the Bid to be returned unopened in case it is declared late, pursuant to Clause 11.

8.4 If the outer envelope is not sealed and marked as above, the Procuring Entity will assume no responsibility for the misplacement or premature opening of the Bid.

#### **9. Deadline for Submission of Bids**

9.1 Bids shall be delivered to the Procuring Entity at the address specified in the BDS no later than the time and date specified in the BDS.

9.2 The Procuring Entity may extend the deadline for submission of bids by issuing an amendment, in which case all rights and obligations of the Procuring Entity and the bidders previously subject to the original deadline will then be subject to the new

deadline.

**10. Late Bids**

10.1 Any Bid received by the Procuring Entity after the deadline prescribed in the BDS will be returned unopened to the Bidder.

**11. Bid Opening**

11.1 Due to Covid-19 Pandemic, we are not accepting bids in hard copies. Only soft copies should be submitted to the following E-mail address: [procurement@habitat.mw](mailto:procurement@habitat.mw).

11.2 The Procuring Entity will prepare minutes of the Bid opening, including the information disclosed to those present. Copies of the minutes will be made available to any Bidder who requests them.

11.3 No bid will be rejected at bid opening except for late bids, which will be returned unopened to the bidder.

**12. Domestic Preference**

12.1 If so indicated in the BDS, domestic Bidders or other Bidders using Malawian nationals to carry out the works shall receive a margin of preference in Bid evaluation in accordance with the procedure and criteria specified in Section 3, Evaluation and Qualification criteria.

**13. Award Criteria**

13.1 The Procuring Entity will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the bidding documents and who has offered the lowest evaluated Bid price, provided that such Bidder has been determined to be both eligible and qualified in accordance with the provisions of Clause 2.

**14. Procuring Entity's Right to Accept Bid and to Reject any or all Bids**

14.1 The Procuring Entity reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Procuring Entity's action.

**15. Notification of Award and Signing of Agreement**

15.1 The notification of award by the Procuring Entity to the Bidder will constitute the formation of the Contract, subject to the Bidder signing the Contract and furnishing the Performance Security required in the Bid Data Sheet. The Procuring Entity shall publish in the Malawi Government Gazette the results of the award of contract, as required by the Public Procurement Act 2003.

15.2 The Contract will incorporate all agreements between the Procuring Entity and the successful Bidder. It will be signed by the Procuring Entity and sent to the successful Bidder, within fourteen (14) days following the notification of award. Within fourteen (14) days of receipt, the successful Bidder will sign and date the Contract and deliver it to the Procuring Entity.

15.3 Upon the furnishing by the successful Bidder of the Performance Security, the Procuring Entity will, within one (1) week, notify the other bidders that their bids have been unsuccessful.

**16. Performance Security**

16.1 Within fourteen (14) days after receipt of the Notice of Acceptance, the successful Bidder shall deliver to the Procuring Entity a Performance Security in the form of a Bank Guarantee or other form acceptable to the Procuring Entity, in the amount

specified in the Special Conditions of Contract.

16.2 Failure of the successful Bidder to comply with the requirements of Sub-Clause 15.1 shall constitute sufficient grounds for cancellation of the award.

**17. Adjudicator**

17.1 The Procuring Entity proposes the person named in the BDS to be appointed as Adjudicator under the Contract, at an hourly fee specified in the BDS, plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in the Bid. If, in the Notice of Acceptance, the Procuring Entity has not agreed on the appointment of the Adjudicator, the Adjudicator shall be appointed by the Appointing Authority designated in the SCC at the request of either party.

**18. Corrupt or Fraudulent Practices**

18.1 The Government of the Republic of Malawi (hereinafter called “the Government”) requires that Procuring Entities, as well as Bidders and Contractors under public-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Government:

18.2 defines, for the purposes of this provision, the terms set forth below as follows:

- (i) "corrupt practice" means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
- (ii) "fraudulent practice" means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;
- (iii) “collusive practices” means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Procuring Entity, designed to establish prices at artificial, noncompetitive levels; and
- (iv) “coercive practices” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract.

18.3 will reject a recommendation for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the contract in question;

18.4 will debar a Bidder from participation in public procurement for a specified period of time if it at any time determines that the firm has engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing, a contract.

## Section 2. Bid Data Sheet

Instructions to Bidders (ITB) reference	Data relevant to ITB
ITB 1.1	<p>The Procuring Entity is: <b>Habitat for Humanity Malawi</b></p> <p>The subject of the Works is:</p> <p style="padding-left: 40px;">a) Drilling works for 1 groundwater monitoring well in T/A Masumbankhunda, Lilongwe District.</p> <p>The procurement reference number is: <b><u>HFHM/BMZ6/2024/027</u></b></p>
ITB 1.2	The Intended Completion Date for the Works shall be: <b>10 Calendar Days from Commencement</b>
ITB 3.1	<p>The Bidder shall submit with its bid the following additional documents or information:</p> <ul style="list-style-type: none"> <li>a) <b>Programme of works</b></li> <li>b) <b>Evidence of paying taxes</b></li> <li>c) <b>Evidence of active membership with NCIC</b></li> <li>d) <b>Evidence of active membership with NWRA</b></li> <li>e) <b>Evidence of 3 previous experience in similar works</b></li> </ul>
ITB 4.1	The Contract is an <b>Admeasurement contract</b> .
ITB 6.1	Bids shall remain valid for <b>30</b> days.
ITB 7.1	The Bid <b>shall include</b> “Bid Securing Declaration” using the form included in Section IV Bidding Forms.
ITB 8.1	Bids shall be sent via email
ITB 10.1	<p>The Procuring Entity’s address for bid submission and clarifications is:</p> <p>Attention: <b>Habitat for Humanity Malawi</b></p> <p>Street Address: <b>Off Presidential, Drive</b></p> <p>Floor/Room number: <b>Next to Pacific Villas</b></p> <p>Town/City: <b>LILONGWE</b></p> <p>PO Box No/Postal Code: <b>PO BOX 1638, Lilongwe Malawi</b></p> <p>The deadline for bid submission is:</p> <p>Date <b>13 February 2024</b>. Time: <b>14:00 hours</b></p> <p><b>Please note: HFHM shall accept sealed bids only</b></p>



Instructions to Bidders (ITB) reference	Data relevant to ITB
ITB 13.1	<p>A margin of preference applies. N/A</p> <p>Where a margin of preference applies, the criteria for eligibility and the application methodology are described in Section 3 Evaluation Methodology and Criteria.</p>
ITB 18.1	<p>The Adjudicator proposed by the Procuring Entity is:  <b>To be Appointed by National Construction Industry Council (NCIC)</b></p> <p>The hourly fee for this proposed Adjudicator shall be:  <b>To be established later</b></p> <p>The biographical data of the proposed Adjudicator is as attached to this Bid Data Sheet.  <b>To be established later</b></p>

## Section 3. Evaluation and Qualification Criteria

This section, read in conjunction with Section 1, Instructions to Bidders and Section 2, Bid Data Sheet, contains all the factors, methods and criteria that the Procuring Entity shall use to evaluate a bid and determine whether a bidder has the required qualifications. No other factors, methods or criteria shall be used.

### 1. Qualification Criteria

To qualify for award of the Contract, bidders shall meet the minimum qualifying criteria:

- a) Average annual volume of construction work over the past three (3) years of at least **100%** of the estimated cost of the Contract;
- b) Experience as drilling contractor in the construction of at least **three (3)** works of a nature and complexity equivalent to the Works over the last five (5) years (to comply with this requirement, works cited should be at least seventy (70) percent complete);
- c) (proposals for the timely acquisition (own, lease, hire, etc.) of the following essential minimum equipment:

No.	Equipment Type and Characteristics to be brought to the site for the required work	Minimum Number required
1	Borehole drilling machine	1
2	Poker vibrators	1
3	Seven tonne Lorry	1
4	Seven tonne dump truck	1
5	Plumbing equipment	2 sets
6	Surveying equipment	1 set
7	Hose pipes diameter of 63mm,	each 100 meter long
8	Pump test equipment and GPS	1 set

The Bidder must demonstrate that it will have the personnel for the key positions that meet the following requirements:

No.	Position (staff to be deployed fulltime on site during the construction)	Qualification	Total Work Experience (years)	Experience in Similar Works (years)
1	Site Engineer/ Hydrogeologist (1 no.)	Bsc in Hydrogeology	five years	five years
2	Foreman (1 no.) for concrete and plumbing works	Foremanship Certificate Grade I, or City & Guilds certificate in Construction Technology	ten years	five years
3	Experienced driller	Certificate in construction or anything related to water	Proven experience of similar works for	10 years

			10 years	
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- (e) Liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of at least **25%** of the estimated cost of the Contract.

A consistent history of litigation or arbitration awards against the Applicant or any partner of a Joint Venture may result in disqualification.

The figures for each of the partners of a joint venture shall be added together to determine the Bidder’s compliance with the minimum qualifying criteria in (a) to (e) above; however, for a joint venture to qualify, each of its partners must meet at least thirty-five (35) percent of minimum criteria (a), (b), and (e) above for an individual Bidder, and the partner in charge at least forty (40) percent of those minimum criteria. Failure to comply with this requirement will result in rejection of the joint venture’s Bid.

Subcontractors’ experience and resources will not be taken into account in determining the Bidder’s compliance with the qualifying criteria.

- (e) liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of no less than **25% OF THE CONTRACT BID PRICE**;

A consistent history of litigation or arbitration awards against the Bidder may result in disqualification.

Subcontractors’ experience and resources will not be taken into account in determining the Bidder’s compliance with the qualifying criteria.

**2. Application of Domestic Preference**

If so indicated in the Bid Data Sheet, bidders for works contracts applying for a margin of domestic preference in bid evaluation shall provide such information, including details of ownership, certificates of registration, and composition of the labour force as are necessary to confirm whether a particular supplier or group of suppliers qualifies for domestic preference.

A margin of domestic preference may be awarded to established domestic contractors who are registered as Malawian contractors by the National Construction Industry Council, and are at least fifty (50) percent owned by Malawian nationals. This margin of domestic preference is also be extended to joint ventures between a foreign and such a qualifying Malawian partner provided that at least seventy-five (75) percent of the labour force to be used in the construction and supervision of the works is of Malawian nationality.

The margin of domestic preference shall be applied as follows: **N/A**

After bids have been received and reviewed by the Procuring Entity, responsive bids shall be classified into the following groups -

Group A, namely, bids offered by domestic contractors and joint ventures eligible for the preference.

Group B, namely, bids offered by other contractors.

For the purpose of evaluation and comparison of bids only, an amount equal to ten (10) percent of the bid amount shall be added to bids received from contractors in Group B.

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## Section 4. Bidding Forms

### List of Forms

1. Bid Submission Form
2. Priced Schedules
3. Qualification Information Form

Note: All forms show the information to be completed by the Bidder in bold in square brackets e.g. [**insert date**] etc.

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*Note to Bidders: This Bid Submission Form should be on the letterhead of the Bidder and should be signed by a person with the proper authority to sign documents that are binding on the Bidder.*

## **Bid Submission Form**

Date: .....

Procurement Reference No.: .....

Page ..... of ..... pages

To: **Habitat for Humanity Malawi**

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents;
- (b) We offer to execute the ..... in conformity with the Bidding Documents for the Contract Price of ..... calendar days from the date fixed for the bid submission;
- (c) We have not been debarred from participation in public procurement by the Government of the Republic of Malawi, in accordance with ITB Sub-Clause 17.4;
- (d) Our firm, its affiliates or subsidiaries, including subcontractors or suppliers for any part of the contract are not under investigation by the Anti Corruption Bureau or any other law enforcement body in Malawi relating to participation in any public procurement tender exercise or execution of any public procurement contract relating to the purchase of goods, works and services by any Procuring Entity.
- (e) The names and physical addresses of the Directors of our firm are provided in the table below or we enclose a copy of our latest Audited Accounts (issued within the last twenty-four (24) months):

Name	Address

- (f) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

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Signed: .....  
In the capacity of .....

Name: .....

Duly authorised to sign the bid for and on behalf of: .....

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

*Note to Bidders: The information to be filled in by bidders in the following pages will only be used for purposes of post-qualification or for verification of pre-qualification as provided for in Clause 4 of the Instructions to Bidder, and will not form part of the Contract. Attach additional pages as necessary. If used for pre-qualification verification, the Bidder should fill in updated information only.*

## Qualification Information Form

1. Constitution or legal status of Bidder: **[attach copy]**

Place of registration:

Principal place of business:

2. Average volume of construction work performed in the previous number of years specified in Section 3: **[insert details below and state average]**

Year:				
Volume:				

3. Work performed on works of a similar nature and volume over the last five (5) years. Also list details of work under way or committed, including expected completion date.

Project name and country	Name of client and contact person	Type of work performed and year of completion	Value of contract
(a)			
(b)			

4. Major items of Equipment proposed for carrying out the Works. List all information requested below.

Item of equipment	Description, make, and age (years)	Condition (new, good, poor) and number available	Owned, leased (from whom?), or to be purchased (from whom?)
(a)			
(b)			

5. Qualifications and experience of key personnel for the Contract.

Position	Name	Qualifications	Years of experience (general)	Years of experience in proposed position
(a)				
(b)				

6. Financial reports for the last financial year: balance sheet, profit and loss statement,



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auditors' report, etc. Attach copies.

7. Name, address, and telephone of banks that can provide references if contacted.
8. Proposed Program (work method and schedule). Descriptions, drawings, and charts, as necessary, to comply with the requirements of the bidding documents.
9. Bidders should provide any additional information required in Sections 2 or 3 of the Bidding Document or to fulfil the requirements of Clause 2 of the Instructions to Bidders, as applicable.

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# Bid-Securing Declaration

[The Bidders shall fill in this Form on their letterheads in accordance with the instructions indicated.]

Date: [Bid Submission] .....  
Procurement Reference Number: .....

To: Habitat for Humanity Malawi

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with the Purchaser for the period of **two (2) years** starting in **December, 2022**, if we are in breach of our obligation(s) under the bid conditions, because we:

- (a) have withdrawn our Bid during the period of bid validity specified in the Form of Bid; or
- (b) having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract; or (ii) fail or refuse to furnish the Performance Security, if required, in accordance with the ITB.

We understand this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Signed: ..... in the capacity of .....

Name: .....

Duly authorized to sign the bid for and on behalf of: *[complete name of Bidder]*

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_  
Corporate Seal (where appropriate)

[Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid.]

## Section 5. Eligible Countries

**Procurement Reference Number: HFHM/BMZ6/2024/027**

All countries are eligible except countries subject to the following provisions.

A country shall not be eligible if:

- 1.2 (a) as a matter of law or official regulation, the Government of the Republic of Malawi prohibits commercial relations with that country, provided that the Government is satisfied that such exclusion does not preclude effective competition for the provision of the works required; or
- (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Government of the Republic of Malawi prohibits any procurement of works from that country or any payments to persons or entities in that country.

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## **PART 2 SCHEDULE OF REQUIRMENTS**

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## **Section 6. Schedule of Requirements**

### **A. Scope of Works**

The works are located in T/A Masumbankhunda Lilongwe district.

- a) Construction of 1 ground water monitoring well in T/A Masumbankhunda Lilongwe

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## **B. Technical Specifications**

### SECTION 6B (1)

#### **1.0 GENERAL CLAUSES & MATERIALS AND WORKMANSHIP**

#### **1.1 GENERAL CLAUSES**

##### **1.1.1 Definitions**

In the Specification (as hereinafter defined) the following words and expressions shall have the meanings hereby assigned to them.

- a) "Specification" mean these Specifications together with the technical details given in the Bill of Quantities and, subject to the Engineer's approval, the Contract Drawings, Specifications, and technical details.
- b) "Provided" and its derivatives means the complete design, manufacture, delivery, installation, testing and commissioning of the works, inclusive of such ancillary services as inspection and witnessed testing at the places of manufacture, workshop and site painting, handling on site, site trials and all such other services as are noted in the Specification or reasonably necessary for the safe, reliable and efficient completion of the Contract.

##### **1.1.2 Climatic and Soil Conditions and Access to Site**

The climate is warm and humid with a monthly mean temperature of 21.7 °C. Rainfall, which can be heavy, occurs mainly during the period from November to April. More detailed information and meteorological data can be obtained from the Department of Meteorological Services.

The climate is warm and humid with a monthly mean temperature of 21.7 °C. Rainfall, which can be heavy, occurs mainly during the period from November to April. More detailed information and meteorological data can be obtained from the Department of Meteorological Services.

##### **1.1.3 Extent of Contract**

The works include the construction, testing and commissioning for 45 days of the works described and instruction of the HFHM operation and maintenance procedures.

##### **1.1.4 Work to be Done**

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The work to be done under this Contract shall consist of the supply of all materials, plant, equipment and labour necessary for the complete construction and placing in operation of all related work as shown on the Contract Drawings, specified herein or both and in accordance with the terms of this Contract and the requirements of the Employer.

Without in any way limiting the scope of the foregoing, the work to be done shall, in general, include: the supply of all materials, the delivery, off-loading, transporting, hauling, stocking and installing of all materials and equipment, maintaining of all means of access, doing all clearing, grubbing, excavation, pumping, hailing, ditching, draining, sheeting, shoring, bracing and supporting, pipe bedding, backfilling, compacting, grading, ditching and disposal of excess excavated material; all pipe laying, jointing, testing and repairs, all form of work and carpentry work, steel work, concrete and miscellaneous metal work, building, all pumps and pumping stations mechanical, electrical and control system, and all clearing away and disposal of wastes, rubbish and surplus material, site clean-up and restoration work, and doing all other things necessary to complete the work to put into satisfactory operation all as specified herein and as shown on the Drawings.

#### **1.1.6 Documentation and Submission to be Provided**

During the course of the Contract the Contractor shall furnish three copies of each of the following contract records to the Construction Coordinator for his review and approval:

- a) Samples, test results, specifications, grading, etc. of all construction materials and equipment, concrete mixes, and reinforcement;
- b) Proposals for any temporary walls, drainage, de-watering and non-permanent support to structures;
- c) Sub-orders for plant, materials and services. Except as otherwise approved by the Construction Coordinator, the Contractor shall employ only those specialist manufacturers or Sub-Contractors declared in the Bid and sub-contractors to them shall be confined to those for materials, plant and services in respect of which the Construction Coordinator's approval has been given. Three copies of each suborder, (inclusive of supporting documents to which it may refer) and of any amendments thereto shall be furnished to the Engineer immediately upon issue and each shall state clearly the contract title and the item or drawing reference, or other means of identification;
- d) Monthly progress reports of work in hand under the Contract, at manufacturer's work place and elsewhere. The reports shall be in an agreed format, shall be issued before the 14th day of each month and shall give details of progress with the Contract during the preceding month, including production status of drawings, manufacture, order, stocks of materials, shipping, delivery, erection, testing and commissioning;
- e) Progress schedules, to the Construction Coordinator's requirements indicating the planned dates of commencement and completion of installation for each portion of the work. These schedules, submitted at the Engineer's instructions shall be furnished at agreed time intervals, such intervals to be not less than 14 days;

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- f) Day to day diary sheet recording plant, etc. delivered to, and work executed on Site; and
  - g) Other items as specified or required by the Engineer.

### **1.1.7 Drawings and Documents - Format**

All drawings, dimensions, calculations and information furnished in connection with the Contract shall be expressed in SI (metric) units. No drawings including shop drawings detailed using the imperial system of dimensioning will be accepted.

### **1.1.8 Contractors Staff**

The Contractor and any Sub-Contractor engaged upon the execution of the Works shall be deemed to employ, or to procure the employment of staff skilled and experienced in works of a similar nature to the Works and jointly and severally they shall be responsible for the provision of safe, reliable and efficient Plant such as will ensure its precise and safe operation under all conditions, and shall provide all plant and services reasonably necessary for the complete performance of the works whether or not specifically mentioned in the specification, Bill of Quantities or indicated on the Drawings.

### **1.1.9 Protection and Repair of Construction**

All works shall be protected and should the Contractor fail to adequately protect any parts of the works and they become heaved, cracked or otherwise damaged, all such damaged portions of the work shall be completely repaired and made good to its original condition by the Contractor at his own expense.

### **1.1.10 Protection of Utilities and Adjacent Structures**

The Contractor shall, as part of his unit costs and in a manner approved by the Construction Coordinator, sustain in their place and protect from injury any and all water mains, public or private sewers or drains, conduits, service pipe, pavement, power lines, telephone lines, fences, sidewalks, curbs and all other structures or property in the vicinity of his work, whether over or under ground, or which appear in the excavation, and he shall assume all costs and expenses for such support and for damage which may be occasioned by injury of any of them.

The locations of existing sewers, water mains and underground conduit including telephone and electricity cables that may have been shown on the Plans, are for general information only. It is the Contractors responsibility to verify the completeness of the information shown, and the location of all underground and overhead services with the various companies, Corporations or Utilities controlling these services and to determine the exact location, size and number of such services prior to start of trenching operations.

Should any drains, connections, sewers, culverts or any other utility, within the limits of this Contract be unexpectedly encountered, the Contractor shall immediately notify the Engineer, in writing, if the drains etc. are in the line of the water main, sewer or structure and thus prevent construction.



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If, in the opinion of the Construction Coordinator, such services in the line prevent the laying or construction of the structure, realignment and/or replacement shall be made and the cost of such shall be borne by the Employer.

#### **1.1.11 Working Areas**

The Contractor shall confine his operations to the working areas within the boundaries of the site as shown on the Drawings. The Site shall mean the extent of such public and private lands as is in the opinion of the Construction Coordinator necessary or practicable for the construction of the works. The Contractor shall not use the Site for any purpose not required by the Contract.

In no case shall the Contractor occupy private property without the approval of the Engineer.

#### **1.1.12 Clearance of Site**

The Contractor shall maintain the Site in a neat, tidy, healthy condition. He shall control vegetation so as not to detract from the amenity and appearance of the neighbourhood of the Site.

Upon completion of all works to be performed by the Contractor on any part of the Site other than in connection with the care and maintenance of the Works, the Contractor shall clear the said part of the Site as specified in relevant Clauses of the Conditions of Contract.

#### **1.1.13 Temporary Site Controls**

Dust caused by the Contractor's operations shall be controlled at all times by watering or other approved means. Tank trucks equipped with spray bars, complete with suitable control apparatus, shall be used for application of water to dusty areas.

Construction equipment shall be operated with care to prevent erosion in waterways. Waterway beds shall not be used for borrow material. Excavated fill, waste material or debris shall not be dumped in waterways.

The working area shall be maintained in an orderly manner and shall not be encumbered with equipment materials, or debris. Clean-up shall be a continuing process from the start of the work to final acceptance of the project. The Contractor shall at all times, and without further order, keep property on which work is in progress free from accumulations of waste materials or rubbish caused by employees or by the work. Accumulations of waste materials which might constitute a fire hazard will not be permitted. Spillage from the Contractor's hauling vehicles on travelled public or private roads shall be promptly cleaned up.

Rubbish and waste materials shall not be buried on the site. Waste or volatile materials such as mineral spirits, oil, or paint thinner shall not be disposed of into waterways, storm or sanitary sewers.

Burning shall be carried out at points located centrally in the site. The extent of fires burning at any one time shall be limited by the ability of the Contractor's equipment and

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organization to provide adequate protection against spreading of fires to adjacent timber or property.

Ashes from burning shall be buried or distributed over the site as designated by the Construction Coordinator.

Wastes and materials which are specified or designated by the Construction Coordinator to be disposed of and which are not to be burnt, shall be removed from the site to disposal sites provided by the Contractor.

Materials which are specified or designated by the Construction Coordinator to be salvaged shall be removed, cleaned, delivered, unloaded, and neatly stockpiled at a local site designated by the Employer. Salvaged materials damaged in transit or unloading shall be repaired or replaced at the Contractor's expense.

#### **1.1.14 Easement and Right-of-way releases**

On completion of work in easements or rights-of-way, the Contractor shall obtain, from each property Employer or responsible authority affected, a written signed release verifying that the cleanup has been performed and completed to his satisfaction and that he has no further claim upon the Contractor or the Employer as a result of such work. All such releases shall be turned over to the Engineer prior to the issuance of the Certificate of Completion.

#### **1.1.15 Setting out**

The Contractor shall be responsible for setting out the Works in accordance with the details of the drawings or instructions given by the Building Supervisor, and for all construction levels being correctly related to the benchmark level or existing structure given for reference at the particular site to generally indicate the limits of the work.

A survey of the working area shall be carried out by the Contractor immediately prior to commencement of construction, and a series of cross sections or levels of the site will be produced at intervals approved by the Building Supervisor. These cross sections will be defined as the original ground cross sections or levels.

#### **1.1.16 Geotechnical Investigation**

The Contractor shall be responsible for carrying out geotechnical investigation and soil test to confirm the design bearing capacities and soil properties following BS requirement for the permanent water supply structures to be constructed under the direction of the Building Supervisor. The findings of the geotechnical and soil investigation shall be subject to the Engineers Approval prior to placing any structure.

#### **1.1.17 Measurement of Quantities**

Quantities extra to or deducted from the Contract will be based on figured dimensions on the Drawings. Minimum width of trench, surface centre elevation dimensions to the centre of chambers. Extra work over and above the designed dimensions of structures will not be considered in the measurement of quantity unless it is approved by the Construction Coordinator.

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### **1.1.19 Tender and Contract Drawings and Specifications**

The works are to be built of the materials and to the sizes, dimensions and grades as called for in the Specification and as shown on the Drawings forming part of these Specifications and Contract or such other Drawings as may be issued by the Construction Coordinator from time to time during the progress of the work.

The Drawings as listed in the Conditions of Tender accompany this document and form part of the contract.

The Contractor shall note that the Specifications shall be read in conjunction with the Drawings as a whole to obtain exact details of the work to be done. No claim resulting from the Contractor's failure to do so will be entertained.

Additional Drawings showing details in accordance with which the work is to be constructed will be furnished from time to time by the Construction Coordinator, if found necessary, and will then become a part hereof. The Contractor shall be governed by figured dimensions as given on the Drawings. Where required dimensions are not shown in figures, the Contractor shall obtain such dimensions from the Construction Coordinator before proceeding with the construction of the portion of the work which they refer.

The Contractor shall not consider the provision of such information as cause of delay and shall not endeavour to claim any additional compensation therefore. In every case, detailed drawings shall take precedence over general drawings.

It should be noted that the tender drawings are in most cases of a general nature and the Contractor shall be required to submit detailed design layout, and working drawings of any new works to be carried out for approval by the Construction Coordinator. The detailed working drawings shall conform to the general drawings and specifications; unless otherwise agreed with the Construction Coordinator.

Contractor shall prepare detailed design, working drawings and schedules including co-ordination etc. and submit the construction drawings for approval of the Construction Coordinator prior to commencement of works on site.

### **1.1.20 Working Drawings by Contractor**

Working drawings shall be prepared by the Contractor for all new works such as window frames, doors, cabling system, etc depending on the work method. Total of three (3) prints of all working drawings with specifications shall be submitted to the Building Supervisor for review. The Contractor or his Sub-Contractor shall check and initial all Shop drawings before submission to the engineer so as to intercept any major errors or omissions. Shop drawings will not be checked by the Engineer unless they have been initially checked by the Contractor.

The Contractor shall identify each drawing, giving such reference as clause of Specifications where specified, location where equipment or material is intended to be installed, name of subcontractor or supplier, etc. Working drawings shall show specific and sufficient information for construction purposes. They shall include all necessary dimensions, equipment details, piping schedules and site work such as drainage and fencing.

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Review of the Contractor's drawings by the Construction Coordinator shall not relieve the Contractor of the responsibility for the correctness thereof, nor responsibility for the results arising from any error or omission of details of design. Review of drawings and specifications shall, in every case, be subject to final approval of the equipment and materials after they have been put in commission, all guarantees have been fulfilled and the general operation of the equipment and materials has been found satisfactory to the Construction Coordinator.

There shall be furnished to the Construction Coordinator seven (7) sets of prints of the final amended drawings and specifications at the Contractors expense.

After drawings and specifications have been reviewed by the Engineer, no general change shall be made in them without his written permission. In the event of any such alterations or changes being authorised by the Construction Coordinator, further seven (7) prints of each of the revised drawings and specifications, indicating these changes, shall be immediately furnished to him at the Contractors expense.

Catalogue pages or drawings applicable to an entire family or range of equipment will not be accepted as shop drawings unless they are clearly marked up to show the pertinent data for the particular materials. Manufacturer's catalogues, manuals, or price lists will not be accepted as shop drawings, although such material may be used as supplemental information to the shop drawings.

If, after one (1) review by the Engineer, the Contractor fails to submit correct shop drawings, the Employer will be entitled to deduct from any payments due to the Contractor the additional costs to the Employer of the engineering services incurred as a result of the Contractor's failure to submit correct shop drawings.

#### **1.1.21 Record Drawings**

Concurrently with the progress of work on Site the Contractor shall prepare all necessary drawings and diagrams of the 'as-built' Works as may be required for record and for care, maintenance, repair, etc., purposes and these shall include:

- a) Arrangement drawings of each complete installation to a scale of not less than 1:50 and showing all changes, modifications, and new works;
- b) Outline dimension drawings of each of the principal items of new structure and modifications. Each shall carry or be accompanied by a schedule of fittings instruments and components which shall include the makes' names, reference numbers, ratings and full particulars of all the component parts;
- c) Sectional drawings of each of the major items of plant with the parts named and numbered to facilitate maintenance and overhaul. These drawings shall also show the type of fit and running clearance for fitted and running parts and with them shall be included such detailed workshop drawings as may be necessary for the manufacture of replacement components during the working lifetime of the Plant;

The foregoing drawings may include those submitted and approved as Working Drawings and all shall be sized and set out according to the requirements for the Working Drawings.

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- submit 2 draft copies of 'as-built' documents for review by the Engineer; and
  - submit 6 final copies of 'as-built' documents

The Plant shall not be deemed to be ready for item of the Completion Certificate until the Record Drawings have been furnished.

### **1.1.22 As-Built Drawings**

There shall NOT be any requirement for contractor to furnish procuring entity with As-Built drawings

### **1.1.23 Operation and Maintenance Manuals**

Concurrently with the progress of work on Site the Contractor shall prepare the operating and Maintenance Instruction Manuals which shall include, where applicable:

- a) Schedule of approved Record Drawings and documents;
- b) Detailed description of the Plant and its method of operation control and protection;
- c) Recommended operation and routine check procedures;
- d) Recommended maintenance routines together with the procedures for the commissioning of major items of plant;
- e) Recommended emergency control procedures;
- f) Maker's descriptive literature and technical data sheets in respect of each item of the Plant including the recommended installation, care, maintenance and overall instructions, parts lists etc., whereby the Plant may be maintained correctly and whereby replacement spare parts may be ordered without difficulty;
- g) Exploded views of all items of plant with each component and reference number cross referenced to the appropriate data sheet and spare schedule;
- h) Schedule of the principal items of plant and components showing the title, maker, Maker's type reference, serial number, rating etc., whereby reference to each is simplified; and
- i) Test results and curves, including all mechanical and electrical equipment and system test data and reports.

Particular reference is to be made in the operating and maintenance instructions to the:

- a) Safety precautions and instructions to be taken when operating the plant;
- b) Pre-check list;
- c) Bearings and moving parts which require special attention;

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- d) Type of lubricants to be used, and lubrication intervals;
  - e) Routine tests which are recommended to confirm that the plant is in good working order; and
  - f) Fault finding and corrective measure guide.

Two draft copies of the manuals shall be submitted to the Engineer for his approval at least 2 weeks prior to the Tests on Completion. The Manuals shall be used for commissioning and testing under the Contractor's supervision where their content and accuracy will be checked. All manuals shall be written in the English language.

Upon the satisfactory completion of the installation and testing of the Works and before the Final Certificate is issued, 5 copies of the Manuals and an electronic CD, incorporating amendments and additions instructed by the Engineer shall be provided.

#### **1.1.24 Contractor's Responsibility for Design**

Subject to the requirements of this Specification the Contractor shall be responsible for the general and detailed design of the complete equipment to be provided and for the dimensions and arrangements of the various parts. The contractor shall be responsible for checking the dimensions and installation conditions of the existing plant and for the design of any modifications required.

The design, construction and finish of the complete equipment supplied under this Contract shall be of first class workmanship and in accordance with latest waterworks practice and each item of equipment shall be in every way suitable for continuous operation over the full range of duties. The plant shall be as simple and maintenance free as possible.

#### **1.1.25 Locating and Protecting of Existing Structures and Utilities**

The Contractor shall be responsible for locating existing surface and underground structures and utility installations that may affect the work or may be damaged during construction. Drawings or descriptions, verbal or otherwise, of existing structures or their location that are given to the Contractor are intended only as an aid to his location of these structures.

On request from the Engineer, the Contractor shall excavate and uncover underground structures or utilities for the purpose of establishing their locations. Prior to excavation by machine, the Contractor shall clearly mark the locations of existing utilities. The Contractor shall arrange for representatives of utility companies to be on site at appropriate times to locate their existing plant or services.

Unless removal of existing installations is specified elsewhere herein or is authorized by the Engineer, underground and surface structures and utilities encountered during construction shall be protected from damage due to settlement by means of timber support or compaction of backfill with approved granular material suitable for compaction as required.

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### **1.1.26 Approval of Contractor's Proposals**

The Contractor shall submit 4 copies of the following documentation, giving details of his proposals for approval, to the Engineer within 4 weeks of the Contract Start Date:

- a) our copies of design and working drawings and data including calculation and erection information;
- b) Four copies of full technical specifications of all plant and equipment proposed for the works; and
- c) Details of dead and live loads imposed by each item of plant on its foundation.

The Engineer's approval of the Working Drawings, Contract Records, etc. and of the Workshop test records etc., shall not relieve the Contractor of the obligation to meet the terms of the Specifications. Any of the Plant, which upon delivery to site is found to be incorrect or unsatisfactory, or which fails to perform its duty satisfactorily during commissioning or during the Defects Notice Period shall be replaced to the Engineer's satisfaction.

### **1.1.27 Testing and Inspection**

The Contractor shall provide 3 copies of a test plan for both the factory and site tests and inspections, for the Engineer's approval. The plan shall consist of a logical step-by-step schedule indicating step, action and reaction. The plan shall be cross referenced to relevant sections of the Specification, Schedules, and British Standards (or equivalent where applicable), and shall state clearly the test method to be employed, the equipment to be used, the parameters to be measured, and the expected results. On satisfactory completion of the tests, etc., the plan shall be completed with the results achieved and shall be retained for record purposes.

The test may be sectionalised to suit the plant purchases and manufacturing arrangements, and programme. Each section of the plan shall be issued in draft at least 28 days before any testing, inspecting or commissioning takes place. The Engineer will notify his approval or otherwise within 14 days of receipt of the plan. Any portions of the plan, which the Engineer disapproves shall be suitably modified before implementation of that portion of the plan. Final copies of the approved plan shall be available for the testing, inspections or commissioning.

The Contractor shall carry out during manufacture, all tests specified in the relevant British Standard and other applicable standards, amplified as may be called for in the Specification and Schedules, and shall forward to the Engineer in triplicate duly certified copies of the test results and certificate that the equipment and materials comply with the relevant British Standards.

The Contractor shall give not less than fourteen days notice in writing for the time, date and place of all impending tests so that the Engineer or his representative may be present to witness such tests. The Contractor shall furnish test certificates in triplicate for all tests whether witnessed or not.

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As and when the Engineer is satisfied that any plant is in accordance with the Specification and has passed the prescribed workshop test, he will notify the Contractor in writing to that effect.

If after inspection or tests the Engineer decides that the plant concerned or any part thereof is defective or is not in accordance with the Contract, he may reject it by giving the Contractor, within a reasonable time, notice in writing of his decision and the grounds upon which it is based.

### **1.1.28 Tests on Completion**

When the Plant is completely erected on Site and ready for service, the Works shall be tested and commissioned under the Contractor's supervision and subjected to the prescribed Tests on Completion in the presence of the Engineer and the HFHM Staff to demonstrate that it is able to perform its specified duties satisfactorily under the approved system of operation and control and that the whole plant and/or system conforms with the Specification. Testing of equipment and systems shall be fully co-ordinated with the Engineer and plant staff to minimise interruptions to plant operations.

Before the commencement of any site testing, the Contractor shall submit to the Engineer for approval, schedules detailing the tests to be carried out in satisfaction of the Tests on completion. On satisfactory completion of the test the Contractor shall provide copies of the completed schedules for record purposes.

Except where otherwise specified, each item of plant shall be subjected to a continuous twelve-hour trial under normal working conditions, at varying heads, quantities, loads and speeds where applicable to establish correct and reliable functioning of the plant. The performance of each item of plant over its operating range shall be determined using calibrated pressure gauges, flow meters and electrical gauges and measuring devices. Electrical plant shall be tested in accordance with the Institution of Electrical Engineers' Regulations, for earth continuity, polarity and insulation resistance, and the Contractor shall supply the Engineer with three copies of the schedule of test results. The installation will not be accepted until such tests have been approved.

Power consumption, discharge, suction and delivery pressures, shall be measured in the case of pumping plant and power generation and consumption, shall be measured in the case of generating plant where applicable.

The Contractor shall supply all necessary instruments, gauges, meters and suitably qualified personnel to carry out the tests and the cost of these shall be deemed to be included in his tendered prices.

Should any item of plant or process fail to function correctly, the Contractor shall modify or replace at his own expense such items as are necessary until the Plant does meet the requirements and intent of the Specification to the satisfaction of the Engineer.

Four copies of all inspection and test certificates and records shall be furnished to the Engineer immediately after each inspection or test.

After completion of all trials on the various items of plant, the Contractor shall operate the plant for a period of 1 week. During this period the Contractor shall provide all



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skilled personnel required for the operation of the plant and the cost of these shall be deemed to be included in his tendered prices.

The Contractor shall train, at no cost to the Employer's operating staff and shall stand by the plant on a continuous basis while the trials and operation of the plant are in progress. Should the plant breakdown during the trials, the Contractor shall immediately repair it and the trial shall start again.

The takeover date shall be agreed as the date upon which the successful trials and operating of the plant was completed and the Engineer shall issue a Certificate of Completion so dated, when the Record Drawings have been approved and submitted.

### **1.1.29 Transport and Storage**

The Contractor shall be responsible for the storage and security of all materials delivered to site and installed until the Issue of the Certificate of Completion. All materials and equipment to be incorporated in the work shall be handled and stored in such a manner as to prevent warping, twisting, bending, breaking, chipping, rusting, and any injury, theft, or damage of any kind whatsoever to the material or equipment.

Each item shall be securely packed and adequately protected and marked to avoid loss or damage in transit.

All equipment shall be handled and stored in accordance with the manufacture's recommendations as reviewed and approved by the Engineer. Packaged materials and equipment shall be stored and maintained in their original containers with the manufacturer's seals and labels intact.

Deliveries shall be kept to the minimum number possible and any items which are required to be built in or laid under structures shall be delivered to site in ample time to avoid delays.

Any materials and equipment which are rejected by the Engineer shall be promptly removed from the site. Damaged factory-finished surfaces shall be touched up to the Engineer's satisfaction. Primer or enamel to match the original coatings shall be used. Nameplates shall not be painted over.

### **1.1.30 Installation**

The Contractor shall give full and complete written notice of all important operations to the Engineer sufficiently in advance to enable the Engineer to make such arrangements as the Engineer may consider necessary for inspection and for any other purpose. The Contractor shall not start any important operation without the written approval of the Engineer.

The Contractor shall provide all labour, supervision, and materials and equipment for receiving, unloading, storing and erecting the plant on site.

The Contractor shall be responsible for co-ordinating all mechanical, electrical, and structural work for the equipment being installed.

The Plant shall be installed in accordance with the manufacturer's recommendations as reviewed and approved by the Engineer and shall be set and fixed in position and level.

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Special care shall be taken to ensure proper alignment of all equipment with particular reference to the diesel generators, pumps, and drives. The units requiring foundations shall be carefully aligned on their foundations by qualified millwrights after their sole plates have been shimmed to true alignment at the anchor bolts. The anchor bolts shall be set in place and the nuts tightened against the shims. After the foundation alignments have been reviewed by the Engineer, the bedplates or wing feet of the equipment shall be securely bolted in place.

The alignment of equipment shall be further checked after securing to the foundations, and after confirmation of all alignments, the sole plates shall be finally grouted in place. The contractor shall be responsible for the exact alignment of equipment with associated piping and, under no circumstances, will "pipe springing" be allowed.

All wedges, shims, filling pieces, keys, packing, red or white lead, etc., necessary to properly align, level, and secure apparatus in place including grout shall be furnished by the contractor.

All parts, intended to be plumb or level must be proven exactly so. Any scrapping necessary to bring parts proper level bearing after erection shall be done at the cost of the contractor.

The Contractor shall provide all labour and all necessary equipment including timbers, scaffolding, tools and rigging materials required in the performance of the Contract. He shall install whatever piping, and miscellaneous items that are supplied as part of the equipment including lubrication piping, pressure gauge tubing, thermocouple sensors, etc.

The major items of equipment shall be installed, calibrated and tested under the supervision of competent experts, representing the manufacturer of the equipment. This supervision will be provided by equipment manufacturers as noted under specific sections of this Contract.

The Contractor shall completely install all equipment as herein specified and as indicated in the manner that will ensure its satisfactory operation upon completion. The Contractor shall obtain all necessary information regarding equipment from the manufacturers and shall be responsible for all field assembly and installation.

Except where noted, the Contractor shall design, supply and install all hangers, supports, anchor bolts, stands, vibration mountings, etc., required for the complete and proper installation and operation of all equipment and piping.

All necessary templates for fixing the position of bolt holes, etc., shall be provided and the positioning, fixing and securing of holding down bolts, etc., shall be done in such a way that they cannot move or be affected in any way by the building-in operation.

Holes in concrete exceeding 25 mm diameter, if not formed during construction shall be cut as necessary by the Contractor with high speed rotational or impact drills in such a manner that the surrounding material shall not be damaged. The positions of such holes shall be agreed with the Engineer before cutting.

Structural steelwork, etc., shall not be drilled for fixing unless specifically approved by the Engineer.

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The works shall include removal of existing plant, necessary modification to existing plinths and all breaking out reinstatement of building works.

On completion of installation and prior to start up of connected equipment, all piping, water passages and pump casings shall be thoroughly inspected and cleared of all debris, loose concrete, timber and tools.

Un-dimensioned piping, ductwork, etc. shall be installed straight and level and in accordance with the requirements of the Engineer and with the best trade practice. Adequate headroom and clearance shall be provided from existing structures and equipment.

### **1.1.31 Electrical Regulations**

The whole of the work shall be carried out in accordance with the latest edition of the Regulations issued by the Institution of ESCOM Regulations and other equivalent authorities specified herein.

Where there are conflicts or inconsistencies among the regulations then the regulation with the higher standard in the opinion of the Engineer will take precedent.

The Contractor shall also comply with any regulations necessary to enable full insurance coverage to be affected and with any local conditions or by-laws.

Equipment shall not be operated where it is possible to bring such equipment or any part of the equipment within 3m of any energized electrical conductor unless the utility company has been notified, and either the line has been de-energized, or effectively guarded against contact, or displaced or rerouted from the work area. For high-voltage transmission lines, a greater clearance shall be provided as determined by the utility company.

Where practical, metallic pipe Sections shall not be stored under overhead high voltage power lines. If pipe Sections must be stored under power lines, the Contractor shall protect personnel from the effects of induced currents by grounding pipe Sections at two (2) locations with an AWG #2 copper ground conductor and grounding rods.

### **1.1.32 Bridge and Highway Regulations**

The Contractor shall familiarize himself with the requirements and regulations of the Road Authority (RA) of Malawi with regard to work carried out on bridges, road crossings or within the highway right-of-way, and shall comply with such requirements and regulations and obtain any permits required.

The Contractor shall be responsible for traffic control during construction and shall maintain traffic movements to the satisfaction of the authorities having jurisdiction. A minimum of one traffic lane shall be provided at all times unless otherwise permitted by the Engineer. The Contractor shall schedule the work in such a manner that disruption of normal traffic and inconvenience to residents in the working area are kept to a minimum.

Excavations or obstructions on the roadway or side-walk shall be marked with hazard markers. If the obstructions are left overnight, they shall be marked with warning lights.

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Temporary traffic direction signs shall be provided and maintained to ensure that traffic is not unduly interrupted or endangered using traffic control procedures.

When trenching across an existing road, the Contractor shall ensure that no more than one-half (1/2) of the width of any road is closed at one time.

Traffic shall not be permitted on newly-laid pavement until it has cooled to ambient temperature or for 1-day minimum curing time for cut back asphalt.

### **1.1.33 Special Tools**

With each piece of mechanical and electrical equipment or machinery having and requiring periodic repair and adjustment, any special tools, wrenches and accessories required for removing worn parts, making adjustments and carrying out maintenance shall be supplied. There shall also be furnished all gauges, indicators and lubricating devices necessary for the proper operation of the machines whether or not such accessories are specified under later sections.

### **1.1.34 Spare Parts and Service**

The Contractor shall ensure that service and spare parts for all equipment supplied are available in Malawi with local presence of the manufacturers or suppliers' representative.

Spare parts shall be interchangeable with the corresponding parts of the plant and each shall bear a corrosion proof label giving an adequate description for its rapid identification, including drawing number, part number, and maker's name and address.

### **1.1.35 Co-ordination with Plant Staff**

The Contractor shall co-ordinate his work with the plant operating staff for the Employer in order to ensure the minimum disruption to production of water at the plant.

The Contractor shall be responsible for instruction of the plant staff in operation and maintenance of the plant during the period of installation, commissioning and testing.

### **1.1.36 Co-ordination with Electrical Power utility**

The Contractor shall be responsible for arranging the time of connection of electrical power to all permanent facilities requiring electricity and paying for any temporary power requirement of the Contractor. Power used for testing and commission of the completed facilities will be the responsibility of the Contractor until provisional handing over is made.

### **1.1.37 Temporary Buildings**

The locations of any proposed temporary buildings used for staff and for construction purposes and type of temporary buildings to be used shall be acceptable to the Engineer before erection work commences.

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Temporary buildings must be kept clean and free from nuisance so as not to become a danger to the adjoining properties or to form grounds for complaints from property Employers adjacent to the site.

When temporary building facilities are no longer needed for construction they shall be promptly dismantled, unless otherwise specified or directed, and removed from the site.

#### **1.1.38 Temporary Water, Power, Light and Services**

The Contractor shall be responsible for providing all water, power and light services required for him to carry out his work including testing.

The quality of the water shall be to the approval of the Engineer and suitable for the purpose for which it is intended.

The Contractor shall provide throughout the period of construction of the Works and maintain and cleanse suitable and sufficient latrines for use by his employees. He shall ensure that his employees do not foul the Site but make proper use of the latrines. Wastewater shall be disposed of clear of the Site to the satisfaction of the Engineer so as to cause no damage, complaint or in any way affect the water supply and the environment.

The temporary power and light system shall meet the standards and requirements of the local authority.

#### **1.1.40 Photographs**

The Contractor shall supply electronic copies and print of progress photographs, suitably inscribed and dated, of a size not less than 200 mm by 250 mm of such portions of the Works, in progress and completed, as may be directed by the Engineer. The Contractor shall allow for a total number of photographs required for the contract duration not exceeding 240. The electronic copies and prints shall not be retouched. The electronic copies of the photographs shall be the property of the Employer and no prints from these negatives may be supplied to any person or persons without the authority of the Employer or the Engineer. The Contractor shall also provide photograph albums and mounts for mounting photographs.

#### **1.1.41 Hours of Work**

The Contractor may normally carryout the work during the daylight hours of any weekday, providing that he so conducts his operations as not to create a nuisance or disturb the peace unnecessarily and providing such hours meet with the approval of the Engineer. Whenever the Contractor desires to depart from his normal working hours as established by his past performance, he shall obtain the written approval of the Engineer at least 48 hours prior to the contemplated change in operation.

Night and weekend work may be required for connections to existing works so as to minimise disruption to users or the operation of the existing plant.

#### **1.1.42 Construction Safety Requirement**

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The Contractor shall observe and enforce construction safety measures required by the relevant statutes and authorities. In the event of conflict between any provisions of any authorities the most stringent provision shall apply.

The Contractor shall, before commencement of works apply to Ministry of Labour Headquarters Office in Lilongwe for necessary clearance on safety satisfaction and requirements of the construction site to be a working place.

The Contractor shall appoint a Safety Supervisor who shall be qualified in safety and familiar with the works being performed. The Safety Officer shall ensure that adequate measures and rules for the protection of health and safeguarding against accidents are enforced.

The Contractor shall take all necessary precautions against risks of loss of life or of injury to any person employed on the Works or to employees of the Employer and to the Project Manager or to visitors or to persons having good and sufficient reasons to be about the Works, and to this end he shall properly safeguard the Works to the satisfaction of the Project Manager.

The Contractor shall at all times comply with any accident prevention regulations and any safety regulations peculiar to the various trades employed on the Works, and any safety regulations published by the Government. Reference shall also be made to Occupational Safety Health and Welfare Act of 1997 of the Malawi Government.

The Contractor shall report promptly to the Project Manager all accidents involving the death of or serious injury to any person on the Site or resulting from the Contractor's operations.

The Contractor shall, at his own expense, educate all his employees on safety precautions based on good practice on site. This shall be done in both English and local languages. Safety instructions shall deal with all safety measures including but not be limited to the following; protective clothing, helmets and footwear, use of lifting equipment, precautions against electrical shock, welding, routine procedures in case of accidents, fires, etc., watchmen, warning notices and barriers, use of drilling equipment and dust suppression and use and storage of explosive.

The Contractor shall erect construction safety signs and barriers as and where directed by the Engineer. The signs and barriers shall be maintained in good condition and kept clean at all times.

#### **1.1.43 First Aid and Site Health**

The Contractor shall provide and maintain on the site in a clean, orderly condition, completely equipped first aid facilities which shall be reasonably accessible at all times to all his employees. The Contractor shall designate certain employees who are properly instructed to be in charge of first aid. At least one such employee shall always be available on the site while work is being carried on. A telephone call list for summoning aid, such as doctors, ambulance, etc., shall be conspicuously posted.

The Contractor shall advise all site staff and labour (including all Contractor's employees, all subcontractors and Consultants employees and all truck drivers and crew making deliveries to site) of the dangers and impacts of Sexually Transmitted Infections

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(STIs) in general and HIV/AIDS in particular. To this end, the Contractor shall conduct Information, Education and Consultation (IEC) campaigns at least once every month, addressed both to the aforementioned site staff and labour. The Contractor shall also make available an unlimited supply of free condoms to cater for all staff and labour. The Contractor shall, if requested to do so, liaise with the Ministry of Health and their designated local representatives or agents to report progress and coordinate the STI and HIV/AIDS alleviation measures on site with the Ministry of Health National program.

## **C. DRAWINGS**

<b>List of Drawings</b>	
<b>Drawing Number</b>	<b>Drawing Title</b>

# **BILL OF QUANTITIES**



<b>BILL OF QUANTITIES</b>						
<b>LIONS PROJECT - CONSTRUCTION OF DEEP WELL BOREHOLE</b>						
<b>ITEM No.</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>	
<b>1. GENERAL</b>						
1.10	Mobilization/ Demobilization of equipment, construction materials and manpower	Lump Sum	1			
1.20	Hydrogeological assessment and Geophysical survey for borehole siting including Borehole siting report	Lump Sum	1			
1.30	Site clearing/ preparations and rigging up before drilling	Lump Sum	1			
<b>2.BOREHOLE DRILLING</b>						
2.10	Drilling first 30meters	Meters	30			
2.20	Drilling 30m - 45m	Meters	15			
2.30	Drilling from 45m - 80m	Meters	35			
2.40	Well Logging	Lump Sum	1			
2.50	Supply and installation of 160mm UPVC Plain	Meters	42			
2.60	Supply and installation of 160mm UPVC slotted casings and centralizers	Meters	18			
2.70	Gravel packs	Lump Sum	1			
<b>3. WELL DEVELOPMENT AND YIELD TESTING</b>						
3.10	Borehole development as specified	Hr	6			
3.20	Pump Testing	Hr	6			
3.30	Sanitary seal up to 5 meters depth	Lump Sum	1			

<b>4. CIVIL WORKS</b>						
<b>5. SUPPLY AND INSTALLATION OF HAND PUMPS</b>						
5.10	Well Disinfection	Lump Sum	1			
<b>8. MISCELLANEOUS</b>						
6.10	Chemical and Bacteriological water quality testing and report	<i>Please do not budget for this, it will be done independently by HFHM</i>				
7.00	NCIC LEVY 1%					
8.00	VAT 16.5%					
<b>TOTAL</b>						



## PART 3 CONTRACT FORMS

### Section 7: General Conditions of Contract

#### Section 7. General Conditions

##### 1. Definitions

- (a) The following words and expressions shall have the meanings hereby assigned to them:

The “Activity Schedule” means the priced Activity Schedule forming part of the Bid for a Lump Sum Contract.

An “Admeasurement Contract” means a contract based on a priced Bill of Quantities or schedule of unit price rates in which payment to the Contractor is subject to measurement of physical quantities of items by the Employer.

The “Adjudicator” is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in Clauses 13 and 14 hereunder.

“Bill of Quantities” means the priced and completed Bill of Quantities forming part of the Bid for an Admeasurement contract.

“Compensation Events” are those defined in Clause 27 hereunder.

The “Completion Date” is the date of completion of the Works as certified by the Project Manager in accordance with Sub-Clause 35.1.

The “Contract” is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works.

The “Contract Price” is the price stated in the Notice of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

“Contractor” means the Supplier appointed under the Contract for the performance of the Works.

“Days” are calendar days; “months” are calendar months.

“Dayworks” are varied work inputs subject to payment on a time basis for the Contractor’s employees and Equipment, in addition to payments for associated Materials and Plant.

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

The “Defects Liability Certificate” is the certificate issued by Project Manager upon correction of defects by the Contractor.

The “Defects Liability Period” is the period named in the Special Conditions of Contract and calculated from the Completion Date.

“Drawings” include calculations and other information provided or approved by the Project Manager for the execution of the Contract.

“Employer” means the Procuring Entity who employs the Contractor to carry out the

Works.

“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 listed in the Employer’s Notice of Acceptance.

The “Intended Completion Date” is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Special Conditions of Contract. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.

“Materials” are all supplies, including consumables, used by the Contractor for incorporation in the Works.

“Plant” is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.

The “Procuring Entity” is the party who employs the Contractor to carry out the Works.

The “Project Manager” is the person named in the Special Conditions of Contract (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.

The “Site” is the area defined as such in the Special Conditions of Contract.

“Site Investigation Reports” are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.

“Specification” means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.

The “Start Date” is given in the Special Conditions of Contract. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any Site Possession Dates.

A “Subcontractor” is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.

The “Supplier” is a person or corporate body whose Bid to carry out the Works has been accepted by the Procuring Entity.

The “Contractor’s Bid” is the completed bidding document submitted by the Contractor to the Procuring Entity.

“A “Variation” is an instruction given by the Project Manager which varies the Works.

The “Works” are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the Special Conditions of Contract.

## **2. Language and Law**

- 2.1 The language of the Contract is English and the governing law is that of Republic of Malawi.

## **3. Project Manager’s Decisions**

- (b) Except where otherwise specifically stated and subject to any restrictions in the Special Conditions of Contract, the Project Manager will decide contractual matters between the Employer and the Contractor in the role representing the

Employer.

#### **4. Communications**

4.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.

#### **5. Subcontracting**

5.1 The Contractor may subcontract with the approval of the Project Manager but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations.

#### **6. Other Suppliers**

6.1 The Contractor shall cooperate and share the Site with other suppliers, contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Suppliers, as referred to in the Special Conditions of Contract. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Suppliers, and shall notify the Contractor of any such modification.

#### **7. Personnel**

7.1 The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the Special Conditions of Contract, to carry out the functions stated in the Schedule or other personnel approved by the Project Manager. The Project Manager will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel listed in the Schedule.

7.2 If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven (7) days and has no further connection with the work in the Contract.

#### **8. Contractor's Risks**

8.1 From the Starting Date until the Defects Correction Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) are the Contractor's risks.

#### **9. Insurance**

9.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts stated in the Special Conditions of Contract for the following events which are due to the Contractor's risks:

- (c) loss of or damage to the Works, Plant, and Materials;
- (d) loss of or damage to Equipment;
- (e) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- (f) personal injury or death and Third Party liability.

9.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for approval before the Start Date. All such insurance shall provide for

compensation to be payable as required to rectify the loss or damage incurred. If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

- 9.3 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.

#### **10. Contractor to Construct the Works**

- 10.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

#### **11. The Works to Be Completed by the Intended Completion Date**

- 11.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager and complete them by the Intended Completion Date.

#### **12. Safety**

- 12.1 The Contractor shall be responsible for the safety of all activities on the Site.

#### **13. Disputes**

- 13.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within fourteen (14) days of the notification of the Project Manager's decision.

#### **14. Procedure for Disputes**

- 14.1 The Adjudicator shall give a decision in writing within twenty-eight (28) days of receipt of a notification of a dispute.
- 14.2 The Adjudicator shall be paid by the hour at the rate specified in the Special Conditions of Contract, together with reimbursable expenses of the types specified in the Special Conditions of Contract, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within twenty-eight (28) days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above twenty-eight (28) days, the Adjudicator's decision will be final and binding.
- 14.3 The arbitration shall be conducted in accordance with the arbitration procedure published by the institution named and in the place shown in the Special Conditions of Contract.
- 14.4 Should an Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator will be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within thirty (30) days, the

Adjudicator shall be designated by the Appointing Authority designated in the Special Conditions of Contract at the request of either party, within fourteen (14) days of receipt of such request.

**15. Program**

15.1 Within the time stated in the Special Conditions of Contract, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works.

15.2 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period stated in the Special Conditions of Contract.

15.3 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

**16. Extension of the Intended Completion Date**

16.1 The Project Manager 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, which would cause the Contractor to incur additional cost.

**17. Delays Ordered by the Project Manager**

17.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

**18. Early Warning**

18.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

18.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

**19. Correction of Defects**

19.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the Special Conditions of Contract. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

19.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.



**20. Uncorrected Defects**

20.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager will assess the cost of having the Defect corrected, and the Contractor will be liable for this amount. The amount will be deducted from current and future payment certificates, or paid by the Contractor if insufficient funds are due under the contract.

**21. Bill of Quantities or Activity Schedule**

21.1 This Contract is:

- (g) An Admeasurement Contract with a Bill of Quantities, subject to Option 1; or
  - (h) A Lump Sum Contract with an Activity Schedule, subject to Option 2,
- as indicated in the Special Conditions of Contract.

**Option 1: Bill of Quantities for Admeasurement Contract**

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

21.3 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

**Option 2: Activity Schedule for Lump Sum Contract**

21.4 The Contractor shall provide updated Activity Schedules within fourteen (14) days of being instructed to by the Project Manager. The activities on the Activity Schedule shall be co-ordinated with the activities on the Program.

21.5 The Contractor shall show delivery of Materials to the Site separately on the Activity Schedule if payment for Materials on Site shall be made separately.

**22. Change in the Bill of Quantities or Activity Schedule****Option 1: Changes in the Bill of Quantities for Admeasurement Contracts**

22.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than twenty-five (25) percent, provided the change exceeds one (1) percent of the Initial Contract Price, the Project Manager shall adjust the rate or price to allow for the change.

22.2 The Project Manager shall not adjust rates or prices from changes in quantities if thereby the Initial Contract Price is exceeded by more than five (5) percent, except with the prior approval of the Employer.

22.3 If requested by the Project Manager the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

**Option 2: Changes in the Activity Schedule for Lump Sum Contracts**

22.4 The Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

**23. Variations**

- (i) All Variations shall be included in updated Programs (or in the case of Lump Sum Contracts in updated Programs and Activity Schedules) produced by the

Contractor.

**24. Payment for Variations**

- 24.1 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager.
- 24.2 For Admeasurement Contracts only, if the work in the Variation corresponds with an item description in the Bill of Quantities, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.
- 24.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
- 24.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
- 24.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

**25. Payment Certificates**

- 25.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed and materials on site less the cumulative amount certified previously.
- 25.2 The Project Manager shall check the Contractor's executed work and materials on site and certify the amount to be paid to the Contractor.
- 25.3 The value of work executed and materials on site shall be determined by the Project Manager.

**26. Payments**

- 26.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within thirty (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 shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing and add normal absolute net adjustment of price differences.
- 26.2 Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

**27. Compensation Events**

- 27.1 The following shall be Compensation Events:
- (j) The Employer does not give access to a part of the Site by the Site Possession Date stated in the Special Conditions of Contract.
  - (k) The Project Manager orders a delay or does not issue Drawings, Specifications, or

instructions required for execution of the Works on time.

- (l) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
- (m) Other suppliers, contractors, public authorities, utilities, or the Employer cause delay or extra cost to the Contractor.
- (n) The advance payment is delayed.
- (a) The Project Manager unreasonably delays issuing a Certificate of Completion.

27.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

27.3 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor not having given early warning.

## **28. Currencies**

28.1 Payments shall only be made in Malawi Kwacha.

## **29. Retention**

29.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the Special Conditions of Contract until Completion of the whole of the Works.

29.2 On completion of the whole of the Works, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected.

29.3 With the approval of the Employer, the Contractor may substitute retention money with an "on demand" Bank guarantee.

## **30. Liquidated Damages**

30.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the Special Conditions of Contract for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the Special Conditions of Contract. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

## **31. Advance Payment**

31.1 The Employer shall make advance payment of the amount stated in the Special Conditions of Contract against provision by the Contractor of an Unconditional Bank Guarantee, in a form and by a bank acceptable, to the Employer.

31.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

31.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, to be recovered within one half of the

completion period.

**32. Securities**

32.1 The Performance Security shall be provided to the Employer no later than twenty-one (21) days after receipt of the Notice of Acceptance and shall be issued in the form of a Guarantee in the format specified in the contract and in an amount specified in the Special Conditions of Contract and by a bank acceptable to the Employer. The Performance Security shall be valid until a date twenty-eight (28) days from the date of issue of the Certificate of Completion.

**33. Dayworks**

33.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

33.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two (2) days of the work being done.

33.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

**34. Cost of Repairs**

34.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

**35. Completion**

35.1 The Contractor shall request the Project Manager to issue a certificate of Completion of the Works, and the Project Manager will do so upon deciding that the work is completed.

**36. Taking Over**

36.1 The Employer shall take over the Site and the Works within seven (7) days of the Project Manager's issuing a Certificate of Completion.

**37. Final Account**

37.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within thirty (30) days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within thirty (30) days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

**38. Termination**

38.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

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

- (o) the Contractor stops work for twenty-eight (28) days when no stoppage of work is shown on the current Program and the stoppage has not been authorised by the Project Manager;
- (p) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within twenty-eight (28) days;
- (q) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (r) a payment certified by the Project Manager is not paid by the Employer to the Contractor within ninety (90) days of the date of the Project Manager's certificate;
- (a) the Project Manager 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 Project Manager;
- (b) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the Special Conditions of Contract; and
- (c) if the Contractor, in the judgement of the Employer has engaged in corrupt, fraudulent, collusive or coercive practices in competing for or in executing the Contract.

For the purpose of this paragraph:

"corrupt practice" means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution.

"fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract;

"collusive practices" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Employer, designed to establish prices at artificial, noncompetitive levels; and

"coercive practices" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract.

38.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under Sub-Clause 38.2 above, the Project Manager shall decide whether the breach is fundamental or not.

38.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

38.5 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.

### **39. Payment upon Termination**

39.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the Special Conditions of Contract. Additional Liquidated Damages shall

not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

39.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

#### **40. Property**

40.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.

#### **41. Force Majeure**

(s) For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Contractor that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Contractor. Such events may include, but not be limited to, acts of the Employer in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

41.1 If a Force Majeure situation arises, the Contractor shall promptly notify the Employer in writing of such condition and the cause thereof. Unless otherwise directed by the Employer in writing, the Contractor shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

(t) The Contractor shall not be liable for forfeiture of its performance security or retention monies held, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

#### **42. Release from Performance**

42.1 If the Contract is frustrated by an event of Force Majeure or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

## Section 8. Specific Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

GCC Clause Reference	Special Conditions
<b>GCC 1.1</b>	<p>The name and procurement reference number of the Contract is: <b><u>HFHM/BMZ6/2023/022</u></b></p> <p>The Project Manager is: <b>Ulemu Gondwe</b></p> <p>The Works consist of:</p> <p style="padding-left: 40px;">a) Construction of 10 new boreholes fitted with Afridev pumps and fence in ten villages in T/A Masumbankhunda in Lilongwe.</p> <p>The Sites are located at: <b>T/A Masumbankhunda in Lilongwe; estimated distance of 80 kilometers from Lilongwe Old town.</b></p> <p>The Start Date shall be <b>7<sup>th</sup> November 2023</b></p> <p>The Intended Completion Date for the Works shall be: <b>20<sup>th</sup> November ,2023</b></p> <p>The Defects Liability Period shall be: <b>6 months</b></p>
<b>GCC 3.1</b>	<p>The Employer’s specific approval is required for:</p> <p>individual Variations (GCC Clauses 23 and 24) or Compensation Events (GCC Clause 27) or Measurements (GCC Clause 22) which would result in an increase to the Initial Contract Price of more than 5 (five) percent;</p> <p>any new Variations or Compensation Events or Measurements which together with previously approved Variations and Compensation Events and Measurements, would result in an increase to the Initial Contract Price of more than 15 (fifteen) percent.</p>
<b>GCC 6.1</b>	The Schedule of Other Suppliers is <b>not part</b> of the Contract
<b>GCC 7.1</b>	The Schedule of Key Personnel is part of the Contract
<b>GCC 9.1</b>	Insurance cover from start date to the end of the defects liability period to cover for any risks
<b>GCC 14.2</b>	<p>The hourly rate to be paid to the Adjudicator is: <b>To be established later</b></p> <p>Fees and types of reimbursable expenses to be paid to the Adjudicator are:</p>

GCC Clause Reference	Special Conditions
	<b>Transport and accommodation and meals</b>
<b>GCC 14.3</b>	The institution whose arbitration procedures shall be used is: <b>National Construction Industry Council (NCIC)</b> Arbitration shall take place at: <b>Lilongwe</b>
<b>GCC 14.4</b>	The Appointing Authority for a replacement Adjudicator is: <b>NCIC</b>
<b>GCC 15.1</b>	The Contractor shall submit a revised Program for the Works within 10 days of delivery of the Notice of Acceptance.
<b>GCC 15.2</b>	The period between Program updates is 14 days.
<b>GCC 19.1</b>	The Defects Liability Period is: <b>6 months</b>
<b>GCC 21.1</b>	This Contract is a <b>Admeasurement</b> Contract.
<b>GCC 26.1</b>	The rate of interest for late payments is <b>0.5%</b> .
<b>GCC 27.1</b>	The Site Possession Date shall be: <b>7 days after Contract signing</b>
<b>GCC 29.1</b>	The proportion of payments retained is <b>10%</b> . The whole retained amount shall be paid after the expiry of the defects liability period.
<b>GCC 30.1</b>	The rate per day for liquidated damages is <b>0.1%</b> of the final Contract Price per day.  The maximum amount of liquidated damages for the whole of the Works is <b>10%</b> of the final Contract Price.
<b>GCC 31.1</b>	The Advance Payment will be equivalent to <b>20%</b> of the Contract Price. It will be paid to the Contractor no later than <b>14 days after submission of the performance security or construction bond</b>
<b>GCC 32.1</b>	The Performance Security (construction bond) shall be for <b>10%</b> of the Contract Price:  And shall be provided not later than 14 working days after contract signing
<b>GCC 39.1</b>	The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is: <b>30%</b>



## Section 9. Contract Forms

*Note for Bidders: The Performance Security should be on the letterhead of the issuing Financial Institution and should be signed by a person with the proper authority to sign documents that are binding on the Financial Institution.*

### Performance Bank Guarantee

#### Performance Bank Guarantee (Unconditional)

Date: .....

Procurement Reference No.: **HFHM/BMZ6/2023/022**

To: **Habitat for Humanity Malawi, PO BOX 1638, Lilongwe**

WHEREAS ..... (hereinafter called “the Contractor”) has undertaken, in pursuance of Contract No. **HFHM/BMZ6/2023/022** dated ..... to execute **PROVISION OF 1 NO. NEW DRILLING WORKS FOR GRPUND WATER MONITORING WELL IN T/A MASUMBANKHUNDA IN LILONGWE DISTRICT** hereinafter called “the Contract”);

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognised bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE WE hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of ..... such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of ..... as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition, or modification.

This Guarantee shall be valid until a date twenty-eight (28) days from the date of issue of the Certificate of Completion.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458, except that subparagraph (ii) of Sub-article 20(a) is hereby excluded.

Signature and seal of the Guarantor:

Name of Financial Institution:

Address:

Date: