

ZANZIBAR WATER AUTHORITY (ZAWA)



Contract No: SMZ/IMF/No.104/CS/RNCT/2021/2022/08

FOR

CONSULTANCY SERVICES FOR DESIGN AND SUPERVISION OF
PROPOSED CONSTRUCTION OF ON-GROUND AND ELEVATED WATER
TANKS IN UNGUJA AND PEMBA ISLANDS UNDER DEVELOPMENT OF
NATIONAL SOCIAL WELFARE UNDER COVID-19

BETWEEN

ZANZIBAR WATER AUTHORITY(ZAWA)
P.O.Box, 460 - ZANZIBAR

AND

M/S NIMETA CONSULT (T) LIMITED
P.O.BOX, 15651 DAR ES SALAAM - TANZANIA

February, 2022

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CONTRACT

LUMP-SUM REMUNERATION

THIS CONTRACT is made on this 07th day of February, 2022 between ZANZIBAR WATER AUTHORITY (ZAWA) of Malawi Road, Msikiti Mablau Zanzibar of P.O. BOX 460 Zanzibar Tel/Fax: +255242231151. Email: info@zawa.go.tz, and ZAWA Pemba Branch office is P.O.BOX 59 Pemba Tel/Fax +255 242452652 Email: infope@zawa.go.tz hereinafter called the CLIENT of one part.

And

M/S. NIMETA CONSULT (T) LTD (Consulting Engineers and Planners) of P.O.BOX 15651, Bagamoyo Road – Mbezi Beach – Goigi - adjacent to Sharmo Park House, Plot No 2222, Kinondoni - Dar Es Salaam, Tanzania, TEL: + 255 022 2183395 Fax:+255 222 617 091/ Mob:+255 754 386 756/+255 0754 366 067/+255 0754 819 088/+255 0752 689 485. Email nimeta@nimetaconsult.co.tz, Website: www.nimetaconsult.co.tz hereinafter called the CONSULTANT of the second part.

WHEREAS:

- (a) the Client has requested the Consultants to provide consulting services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the "Services");
- (b) the Consultants, having represented to the Client that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract;
- (c) the Client has set aside funds from its budget towards the cost of the Consultancy Services and intends to apply a portion of Project Operational Cost through Training to proceeds to cover eligible payments under this Contract.

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NOW THEREFORE the parties hereto hereby agreed as follows:

1. THAT, the **CONSULTANT** has accepted the Work agreed with **CLIENT** for the Consultancy services in the sum of **TANZANIA SHILLINGS EIGHT HUNDRED NINETY THOUSAND ONLY (890,000,000/-) including VAT.**

2. THAT, the following documents attached hereto form an integral part of this Contract:

- (a) The General Conditions of Contract;
- (b) The Special Conditions of Contract;
- (c) Terms of Reference
- (d) Technical Proposal Submission Form
- (e) Description of the Services
- (f) Key Personnel and Sub Consultants
- (g) Work Programme
- (h) Services and Facilities by Client
- (i) Minutes of Negotiation

(c) The following Appendices:

- Appendix A: Description of the Services
- Appendix B: Reporting Requirements
- Appendix C: Key Personnel and Sub consultants
- Appendix D: Breakdown of Contract Price in Foreign Currency--Not used
- Appendix E: Breakdown of Contract Price in Local Currency
- Appendix F: Services and Facilities Provided by the Client
- Appendix G: Minutes of Negotiation Meeting

2. The mutual rights and obligations of the Client and the Consultants shall be as set forth in the Contract, in particular:

- (a) The Consultants shall carry out the Services in accordance with the provisions of the Contract; and
- (b) the Client shall make payments to the Consultants in accordance with the provisions of the Contract.

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IN WITNESS, WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of the CLIENT

Witness prepared by the CLIENT

Signature

Signature

Name: ENG. DR. SALHA MOHAMMED

Name KHADIJA MAKAME JUMA

Title: DIRECTOR GENERAL

Title LAWYER



For and on behalf of the CONSULTANT

Witness prepared by the

CONSULTANT

Signature

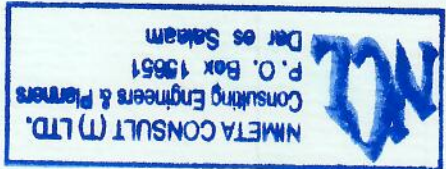
Signature

Name: ENG. EMMANUEL TASEVI

Name: MR. KALYA E. TASEVI

Title: MANAGING DIRECTOR

Title: Director



OFFICIAL STAMP

II. GENERAL CONDITIONS OF CONTRACT

1. General Provisions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) "Applicable Law" means the laws and any other instruments having the force of law in Zanzibar, as they may be issued and in force from time to time;
- (b) "Contract" means the Contract signed by the Parties, attached, together with all the documents listed in Clause 1 of such signed Contract;
- (c) "Contract Price" means the price to be paid for the performance of services, in accordance with Clause 6 (GC);
- (d) "Effective Date" means the date on which this Contract comes into force and effect pursuant to Clause GC 2.1;
- (e) "Foreign Currency" means any currency other than the currency of the United Republic of Tanzania;
- (f) "GC" means these General Conditions of Contract;
- (g) "Government" means the Revolutionary Government of Zanzibar;
- (h) "Local Currency" means the currency of United Republic of Tanzania (URT);
- (i) "Member," in case the Consultants consist of a joint venture of more than one entity, means any of these entities; and "Members" means all these entities;
- (j) "Party" means the Client or the Consultants, as the case may be, and "Parties" means both of them;
- (k) "Personnel" means persons hired by the Consultants or

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Definition

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by any Sub consultant as employees and assigned to the performance of the Services or any part thereof; "Foreign Personnel" means such persons who at the time of being so hired had their domicile outside the United Republic of Tanzania; "Local Personnel" means such persons who at the time of being so hired had their domicile inside the United Republic of Tanzania; and "Key Personnel" means the Personnel referred to in Clause GC 4.2(a);

(l) "SC" means the Special Conditions of Contract by which the GC may be amended or supplemented;

(m) "Services" means the work to be performed by the Consultants pursuant to this Contract, as described in Appendix A hereto;

(n) "Sub consultant" means any person or entity to whom/which the Consultants subcontract any part of the Services in accordance with the provisions of Clause GC 3.7;

(o) "Third Party" means any person or entity other than the Government, the Client, the Consultants or a Sub consultant.

(p) "Counterpart" means the Client's professional staff attached and assigned to the Consultants for training through the day to day exposure to the duties and works of the Consultants' specialists as listed in Appendix F.

This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.

This Contract has been executed in the language specified in the SC, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

1.3 Language

1.2 Law the Governing Contract

1.2 Law

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- 1.4 Notices**

Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram, or facsimile to such Party at the address specified in the SC.
- 1.5 Location**

The Services shall be performed at such locations as are specified in Appendix A.
- 1.6 Authorized Representatives**

Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Client or the Consultants may be taken or executed by the officials specified in the SC.
- 1.7 Taxes and Duties**

Unless otherwise specified in the SC, the Consultants, Sub consultants, and their Personnel shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable Law, the amount of which is deemed to have been included in the Contract Price.

2. Commencement, Completion, Modification, and Termination of Contract

2.1 Effectiveness of Contract
This Contract shall come into effect on the date the Contract is signed by both parties or such other later date as may be stated in the SC.

2.2 Commencement of Services
The Consultants shall begin carrying out the Services thirty (30) days after the date the Contract becomes effective, or at such other date as may be specified in the SC.

2.3 Expiration of Contract
Unless terminated earlier pursuant to Clause 2.6, this Contract shall terminate at the end of such time period after the Effective Date as is specified in the SC.

2.4 Modification
Modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price, may only be made by written agreement between the Parties

2.5 Force Majeure
2.5.1 Definition
For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

2.5.2 No Breach of Contract
The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

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2.5.3 Extension of Time

Any period within which a Party is required, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

2.5.4 Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultants shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

2.6.1 By the Client

The Client may terminate this Contract, by not less than thirty (30) days' written notice of termination to the Consultants, to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause 2.6.1 and sixty (60) days' in the case of the event referred to in (e):

(a) if the Consultants do not remedy a failure in the performance of their obligations under the Contract, within thirty (30) days after being notified or within any further period as the Client may have subsequently approved in writing;

(b) if the Consultants become insolvent or bankrupt;

(c) if, as the result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than sixty (60) days; or

(d) if the consultant, in the judgment of the client has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this clause:



"corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the selection process or in contract execution and includes inter alia, bribery and extortion or coercion which involve threats of injury to person property or reputation, and.

"fraudulent practice" means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the Client, and includes collusive practice among consultants (prior to or after submission of proposals) designed to establish prices at artificial non-competitive levels and to deprive the Client of the benefits of free and open competition.

(e) if the Client, in its sole discretion, decides to terminate this Contract.

2.6.2 By the Consultant

The Consultants may terminate this Contract, by not less than thirty (30) days' written notice to the Client, such notice to be given after the occurrence of any of the events specified in paragraphs (a) and (b) of this Clause 2.6.2:

(a) if the Client fails to pay any monies due to the Consultants pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-five (45) days after receiving written notice from the Consultants that such payment is overdue; or

(b) if, as the result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than sixty (60) days.

2.6.3 Payment upon Termination

Upon termination of this Contract pursuant to Clauses 2.6.1 or 2.6.2, the Client shall make the following payments to the Consultants:

(a) remuneration pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination;

(b) except in the case of termination pursuant to

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paragraphs (a) and (b) of Clause 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel and their eligible dependents.

3. Obligations of the Consultants

3.1 General

The Consultants shall perform the Services and carry out their obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Consultants shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with Sub consultants or third parties.

3.2 Conflict of Interests

3.2.1

Consultant Not to Benefit from Commissions, Discounts, etc.

The remuneration of the Consultants pursuant to Clause 6 shall constitute the Consultants' sole remuneration in connection with this Contract or the Services, and the Consultants shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services, or in the discharge of their obligations under the Contract, and the Consultants shall use their best efforts to ensure that the Personnel, any Sub consultants, and agents of either of them similarly shall not receive any such additional remuneration.

3.2.2

The Consultants agree that, during the term of this

Consultant and their affiliates, as well as any Sub consultant and any of its Affiliates shall be disqualified from providing goods, works, or services (other than the Services and any continuation thereof) for any project resulting from or closely related to **Interested in Project** the Services.

3.2.3

Neither the Consultants nor their Sub consultants nor the Personnel shall engage, either directly or indirectly, in any of the following activities:

Prohibition of Conflict of Activities

(a) during the term of this Contract, any business or professional activities in the United Republic of Tanzania which would conflict with the activities assigned to them under this Contract; or

(b) after the termination of this Contract, such other activities as may be specified in the SC.

3.3

Confidentiality

The Consultants, their Sub consultants, and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Client's business or operations without the prior written consent of the Client.

3.4 Insurance to be Taken Out by the Consultants

The Consultants (a) shall take out and maintain, and shall cause any Sub consultants to take out and maintain, their (or the Sub consultants', as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage, as shall be specified in the SC; and (b) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums have been paid.

3.5 Consultants' Actions

The Consultants shall obtain the Client's prior approval in writing before taking any of the following actions:

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**Requiring
Client's
Approval**

- (a) entering into a subcontract for the performance of any part of the Services,
- (b) appointing such members of the Personnel not listed by name in C ("Key Personnel and Sub consultants"), and
- (c) any other action that may be specified in the SC.



3.6 Reporting Obligations

The Consultants shall submit to the Client the reports and documents specified in Appendix B in the form, in the numbers, and within the periods set forth in the said Appendix.

3.7 Documents Prepared by the Consultants to Be the Property of the Client

All plans, drawings, specifications, designs, reports, and other documents and software submitted by the Consultants in accordance with Clause 3.6 shall become and remain the property of the Client, and the Consultants shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Client, together with a detailed inventory thereof. The Consultants may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be specified in the SC.

4. Consultants' Personnel

4.1 Description of Personnel

The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Consultants' Key Personnel are described in Appendix C. The Key Personnel and Sub consultants listed by title as well as by name in Appendix C are hereby approved by the Client.

4.2 Removal and/or Replacement of Personnel

(a) Except as the Client may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultants, it becomes necessary to replace any of the Key Personnel, the Consultants shall provide as a replacement a person of equivalent or better qualifications.

(b) If the Client finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultants shall, at the Client's written request

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specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Client.

(c) The Consultants shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

5. Obligations of the Client

5.1 Assistance and Exemptions
 The Client shall use its best efforts to ensure that the Government shall provide the Consultants such assistance as specified in the SC.

5.2 Change in the Applicable Law
 If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the services rendered by the Consultants, then the remuneration and reimbursable expenses otherwise payable to the Consultants under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Clauses 6.2 (a) or (b), as the case may be.

5.3 Services and Facilities
 The Client shall make available to the Consultants the Services and Facilities listed under Appendix F.

6. Payments to the Consultants

6.1 Lump-Sum Remuneration
 The Consultant's total remuneration shall not exceed the Contract Price and shall be a fixed lump-sum including all staff costs, Sub consultants' costs, printing, communications, travel, accommodation, and the like, and all other costs incurred by the Consultant in carrying out the Services described in Appendix A. Except as provided in Clause 5.2, the Contract Price may only be increased above the

amounts stated in Clause 6.2 if the Parties have agreed to additional payments in accordance with Clause 2.4.

(a) The price payable in local currency is set forth in the SC.

6.3 Payment for Additional Services
For the purpose of determining the remuneration due for additional services as may be agreed under Clause 2.4, a breakdown of the lump-sum price is provided in Appendices D and E.

6.4 Terms and Conditions of Payment
Payments will be made to the account of the Consultants and according to the payment schedule stated in the SC. Unless otherwise stated in the SC, the first payment shall be made against the provision by the Consultants of a bank guarantee for the same amount, and shall be valid for the period stated in the SC. Any other payment shall be made after the conditions listed in the SC for such payment have been met, and the Consultants have submitted an invoice to the Client specifying the amount due.

6.5 Interest on Delayed Payments
If the Client has delayed payments beyond fifteen (15) days after the due date stated in the SC, interest shall be paid to the Consultants for each day of delay at the rate stated in the SC.

7. Settlement of Disputes

7.1 Amicable Settlement
The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

7.2 Dispute Settlement
Any dispute between the Parties as to matters arising pursuant to this Contract that cannot be settled amicably

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within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement in accordance with the provisions specified in the SC.

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or other insurance as may be appropriate; and

(e) insurance against loss of or damage to (i) equipment purchased in whole or in part with funds provided under this Contract, (ii) the Consultants' property used in the performance of the Services, and (iii) any documents prepared by the Consultants in the performance of the Services, in an amount equal to their full replacement value.

3.7 "Neither Party shall use these documents for purposes unrelated to this Contract without the prior written approval of the other Party."

6.2(a) The amount in foreign currency or currencies is: **NOT APPLICABLE.**

6.2(b) The amount in local currency is: **TANZANIA SHILLINGS EIGHT HUNDRED NINETY THOUSAND ONLY (890,000,000/-) including VAT**

THAT among TZS. EIGHT HUNDRED NINETY THOUSAND (890,000,000/-) the TZS. TWO HUNDRED THOUSAND ONLY (200,000,000/-) shall be used for Training and Project Operational Cost for CLIENT Task Force.

The accounts are for foreign currency: Not Applicable

for local currency: **M/S NIMETA CONSULTANTS
BANK: CRDB BANK, VJANA
BRANCH, DAR-ES-SALAM,
TANZANIA
ACCOUNT NUMBER: 01J1005547000
SWIFT CODE: CURUTZTZ.**

Payments shall be made according to the following schedule:
Payments for Phase I of Assignment shall be made according to the following schedule:

a) Fifteen percent (15%) of the amount shall be paid upon submission and acceptance by client of the Inception Report;

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6.2(a)
6.2(b)

b) Forty percent (40%) of the contract amount shall be paid upon submission and acceptance of Draft Detailed Engineering Design Reports, Draft Engineering drawings, Draft Tender Documents and draft Confidential Cost Estimates, and

c) Forty five percent (45%) of the contract amount shall be paid upon submission and acceptance of Final Detailed Engineering Design Reports, Final Engineering Drawings, Final Tender Documents and Final Confidential Cost Estimates.

Payment shall be made within **30** days of receipt of the invoice and the relevant documents specified in Clause 6.4, and within **60** days in the case of the final payment.

The interest rate is **NOT Applicable**.

Payments for Phase II of Assignment shall be made on monthly basis and will be effected after the Employer has accepted the inputs being requested for payment.

Any dispute, controversy or claim arising out of or relating to this contract, or the breach, termination or invalidity thereof, shall be settled by **ZANZIBAR COMMERCIAL COURTS** in accordance with the Zanzibar Laws as at present in force.

6.6



TERMS OF REFERENCE

TERMS OF REFERENCE FOR PROVISION OF CONSULTANCY SERVICES FOR DESIGN AND SUPERVISION OF CONSTRUCTION OF ON-GROUND AND ELEVATED WATER TANKS IN UNGUJA AND PEMBA ISLANDS.

1. BACKGROUND

The Government of the United Republic of Tanzania has received a loan from the International Monetary Fund (IMF) to apply parts of this loan to eligible payments under the contract for the consultancy services for design and supervision of construction of On-ground and Elevated water tanks in Unguja and Pemba Islands. This project is going to be implemented under the Zanzibar Water Authority (ZAWA).

The Zanzibar Water Authority (ZAWA) which was established under Act. No. 4 of 2006, is a semi-autonomous entity with the overall management of water supply services and Water Resources Management in Zanzibar. The anticipated beneficiaries are 1,700,000 people of Zanzibar as projected with an average annual growth rate of 2.5% based on 2012 population census. The overall national coverage of water is currently at 55% at an average of service of 6 hrs. ZAWA has also an obligation of setting water tariffs to be collected as revenue from water supply so as to meet all direct and indirect costs of operation and maintenance including capital expansion of minor services.

Focusing on core business, ZAWA is ensuring that resources and competence are aligned to its mission. The strategic direction of ZAWA is revolving around the core business, which are central to the business of the Authority and are in line with its mandate. These core businesses includes:-

- To control, manage and protect all catchments areas
- To secure the continued supply of water in the country
- To develop and maintain the waterworks plan and execute new projects for supply of water
- To promote the conservation and proper use of water resources
- To manage production and distribution of water on sustainable basis

Now in order to enhance services given by the Zanzibar Water Authority (ZAWA), the Revolutionary Government of Zanzibar has decided to invest and expand the Infrastructure of Water Supply provision services. The

Investment is vital for the well being of people of Zanzibar and hence its Economy improvement.

2. PROJECT DESCRIPTION AND LOCATION

The project will involve the Design and Supervision leading to the construction of On-ground and Elevated Water Tanks in Unguja and Pemba Islands pursuant to the specifications indicated in this Terms of Reference.

The facilities to be constructed will be located within Unguja and Pemba Islands as shown in the table below;

| SN | Location | Number of Water Tanks | Volume (Liters) | Tank Type |
|----|----------|-----------------------|-----------------|-----------|
|----|----------|-----------------------|-----------------|-----------|

MKOA WA KASKAZINI - UNGUJA

| | | | | |
|---------------------------|----------|---|-----------|----------|
| 1 | Tumbatu | 1 | 1,000,000 | Elevated |
| 2 | Bumbwini | 1 | 1,000,000 | Elevated |
| <i>Subtotal Kaskazini</i> | | 2 | | |

MKOA WA KUSINI - UNGUJA

| | | | | |
|------------------------|-------------|---|-----------|-----------|
| 1 | Unguja Ukuu | 1 | 1,000,000 | Elevated |
| 2 | Mgeni Haji | 1 | 1,000,000 | Elevated |
| 3 | Bambi Urea | 1 | 1,000,000 | On-ground |
| <i>Subtotal Kusini</i> | | 3 | | |
| <i>TOTAL IN UNGUJA</i> | | 5 | | |

PEMBA ISLAND

| | | | | |
|-----------------------|-------------|---|-----------|-----------|
| 1 | Pujini | 1 | 1,000,000 | Elevated |
| 2 | Chanjaani | 1 | 1,000,000 | On-ground |
| 3 | Makangale | 1 | 1,000,000 | Elevated |
| 4 | Shumbamjini | 1 | 1,000,000 | Elevated |
| <i>TOTAL IN PEMBA</i> | | 4 | | |

3. OBJECTIVES OF THE ASSIGNMENT

The objective of this assignment is to enable ZAWA to provide a reliable water service on a sustainable basis. This assignment is divided into two Phases.

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Consultant shall immediately after signing the contract, present to Client the list of Design Standards that he propose to use in carrying out this

6.1.1 Design Standards

6.1 Activities during Phase I: Detailed Engineering Design and Preparation of Tender Documents

6. ACTIVITIES TO BE CONDUCTED BY CONSULTANT

The Consultant will be responsible to the Chief Executive, Zanzibar Water Authority (ZAWA) and reports to the Water Resource Director closely with the Directorate's staff to accomplish specific task components on daily basis.

5. PROJECT COORDINATION

The engagement shall be deemed to have started on execution of the Contract for consultancy Services for detailed engineering design and Supervision of Construction works shall terminate when the works have been constructed and accepted.

The total duration for Consultant engagement in this assignment will be Nine (9) months. Two months will be for Phase I.e. Detailed Engineering Design and preparation of tender Documents works and Eight (8) months will be for Phase II: i.e. Supervision of Construction works.

4. DURATION OF ASSIGNMENT

Phase I is for the Consultant to undertake Consultancy services on behalf of ZAWA for Detailed Engineering Design, Preparation of Tender Document and preparation of Cost Estimates for Construction of the Water Tanks in Unguja and Pemba. The final documents shall be sufficiently detailed to enable the ZAWA to call for tenders under International Competitive Tender and shall contain such further details as may be required for the construction Works to be carried out through a Contract.

Phase II is, after Contractors for the works have been procured by ZAWA, the Consultant will provide Supervisory Services on behalf of ZAWA and ensure that the water Tanks are being constructed according to Specifications, Costs and within agreed Time frame.

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a) A program of rotary drilling in order to confirm the geological profile, particularly the depth to bedrock and the condition of the bedrock. If rock is encountered at any borehole, drilling throughout the rock should be carried out and advanced to minimum core runs of 3m to confirm if or not the encountered layers is actually a rock.

These investigations would include the following:

Seismic investigations shall also be carried out by the Consultant. Levelling shall be carried out on each exploratory borehole to determine existing ground levels. The permitted bearing values and settlement characteristics of sub-surface stratum shall be determined at proposed foundation levels.

The objective of this task is to perform Geotechnical Investigations at the proposed Water Tanks Sites to ascertain the characteristics of actual soil/rock strata and the engineering properties of each soil/rock strata so as to be able to design the foundation and submit recommendations for types of foundations and safe bearing pressure for the foundation design. Consultant shall carry out sufficient geo-technical investigations necessary for designing appropriate Water Tanks foundations. Sub-surface ground and water conditions shall be investigated by auguring and/or drilling as necessary including taking disturbed and un-disturbed samples, including water and rock samples, if encountered.

6.1.3 Geotechnical Investigations

Topographic surveys and reconnaissance surveys should be conducted by Consultant at all proposed Water tanks sites. Topographical Surveys shall follow the Land Surveying and Mapping Standards of Tanzania, and shall be recorded in standard survey field books/electronic data book, which shall be submitted and become the property of the Client at the completion of the assignment. The co-ordinates of all points picked shall be in Universal Transverse Mercator (UTM) system and shall be tied to the National Survey Grid, and levels related to the National Benchmarks. The topographic surveys shall be carried out at all proposed Water Tanks Sites to pick out all existing features (information) of interest including terrain of the proposed sites.

6.1.2 Topographic Surveys and Reconnaissance surveys

design assignment. After agreement with Client, the Consultant shall proceed with design works accordingly.

Preparation of Engineering Drawings

submitted.
of the design report which will be submitted among the reports to be
All design assumptions, Design Calculations and analysis should be part
materials agreed.

The Consultant shall present to Client the type of the Water Tanks, in
terms of materials, that he propose to design. Consultant should clearly
present the advantages (comparing to other available options) of the type
of tanks he propose to design. After discussion and agreement with the
Client, the Consultant shall proceed with design of the water tanks using
materials agreed.

*Detailed Engineering Design***6.1.4 Detailed Engineering Design of Water Tanks and preparation of Engineering Drawings**

All levels including the depth of borehole logs taken shall be related to
Average Mean Sea Level (AMSL) with the use of appropriate reference
benchmark marks which have been established at site during topographical
surveys carried there.

- A discussion of geotechnical-related aspects which would have to be taken into consideration during construction activities.
 - Recommendations in respect of the most suitable founding solutions;
 - Confirmation of the expected founding conditions as well as the expected founding depths;
 - Test data including results of laboratory testing as well as results of SPT probing;
 - Verification of the geological profile, as indicated by the boreholes;
- b) A program of SPT's (Standard Penetration Tests) to be conducted within the drilling in order to quantify the relative consistency of the overburden materials;
- c) Necessary laboratory testing in order to verify the rock material strengths and other properties of the sub-soils at each exploratory borehole;
- d) The boreholes will be logged by Geotechnical Engineer, in accordance with accepted standards. The geological data thus obtained should be presented in a Geotechnical Report for design purposes. This report should include the following:



The Consultant shall estimate likely ruling bill rates applicable to the proposed time of construction, showing how these are derived. In order to make a fair and reasonable estimate of the cost of project, the Consultant shall prepare a unit price analysis of each item using basic cost elements (labour, materials, equipment, tools, overheads, on - site costs, profit, etc.), and showing separately the cost of all taxes (direct or indirect, duties, levies and fees). The estimated financial cost resulting from this analysis shall be accurate to within +10% and shall be

6.1.6 Preparation of Cost estimates

The calculated quantities for the items of construction shall be based on the final detailed engineering design drawings. The construction quantities shall be derived in accordance with acceptable methods of measurements that shall be agreed with the Client. A detailed bill of quantities shall be prepared under the sections as may be agreed with Client.

6.1.5 Computation of Construction quantities

Showing all auxiliary works including fencing works, Lighting works, access roads at project sites, gates, and any other works using the appropriate scales

- (iv) Auxiliary Works
- (iii) Showing all the details for construction of the Water Tanks and other buildings at water tank sites including foundations, columns, beams, walls, floors Slab, Roof/top cover/slab and stairs etc.
- (ii) Typical Cross-Sections, scale 1:50
- (i) Showing all details of the water tanks cross section in foundations, columns, beams, walls, floors, top cover and stairs etc
- (i) Topographic Plans, scale 1:300

The Consultant shall prepare the Engineering drawings for the project using format and title sheets as will be agreed with ZAWA, with the originals becoming the property of the Client.

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| Section I | - | Invitation for Bids |
| Section II | - | Instructions to Bidders |
| Section III | - | Bid Data Sheet |

a) Volume I

Based on the approved detailed design the Consultant shall prepare complete Tender Documents comprising the following:

The Consultant, after due consultation with the Employer, he shall package the project Water Tanks into an appropriate number of packages with the number of tanks to be agreed with the Client, depending on factors such as availability of construction materials, construction water sources, etc. and prepare the tender documents accordingly for water tanks to be constructed in Unguja and Pemba.

The Consultant shall prepare complete Tender documents using the most recent Standard Procurement Documents in accordance with the current Standard Tendering Documents prepared by the ZPPDA for medium and large works under National and International Competitive Tendering – revised in June 2021.

6.1.8 Preparation of Tender Documents

In carrying out the analysis of the construction schedule, due account shall be taken of the climatic conditions of Unguja and Pemba Islands.

- A "network" showing the proposed ordering or sequencing of the major activities.
 - Duration of the entire project in the form of a bar chart
 - Monthly cost of each activity
 - Anticipated monthly expenditure presented in form of an S-curve.
- In order to assist in evaluating the required construction period and forward budget needs, the Consultant shall carry out a network analysis of the project using suitable deterministic or probabilistic theory or a combination of both showing, inter alia: - Major activities and their duration

6.1.7 Preparation of Construction schedule

comparing with costs of previous projects or similar works executed in Unguja and Pemba and adjusted accordingly. The min computer programme to derive to the unit costs shall be prepared and presented to the Client. The Consultant shall give cost estimates entirely in Tanzania currency.



6.1.9 Reports for Phase I of the Assignment

The volumes III & IV shall be factual reports clearly marked on the cover "FOR INFORMATION ONLY AND NOT PART OF TENDER DOCUMENTS" with preamble in the text stating that these reports are only representing the investigations and findings (without analysis or interpretation of results/findings) of the Employer's Consultant and that it shall be the Tenderer's responsibility to verify for any source the quantity and quality of materials, etc. without binding the Employer.

- d) VOLUME IV - Topographical Survey Report
- c) VOLUME III - Geotechnical and Materials Investigations Report
- b) VOLUME II - Drawings (photo-reduced to "A3" size)
- Section XI - Integrity, Undertaking by Bidder on Anti-Bribery Policy
- Section X -
 - Form of Bid and Appendix to Bid
 - Form of Qualification information
 - Letter of acceptance
 - Form of Contract Agreement
 - Bid Security form or Bid & Securing Declaration form
 - Performance Security Form
 - Bank Guarantee for Advance Payment Form
- Section IX - Bid Form:
- Section VIII - Bill of Quantities
- Section VII - Drawings (Bound Separately as Volume II)
- Section VI - Technical Specifications (Standard and Special)
- Section V - Special Conditions of Contract
- Section IV - General Conditions of Contract

The Consultant shall prepare and submit all reports in English Language and they shall be presented on A4 sized paper.

Consultant shall arrange to present the Reports to a panel of ZAWA experts. The presentation shall be at least 5 days after submission of the hard and soft copies of the Draft Design Reports. The presentation shall preferably be in Power Point.

CONSULTANT'S FAILURE TO SUBMIT REPORTS WHETHER AT INTERMEDIATE STAGES OR OVERALL ON SPECIFIED TIME PERIODS SHALL RESULT TO IMPOSITION OF LIQUIDATED DAMAGES EQUAL TO 1/1000TH (ONE THOUSANDTH) OF THE VALUE OF THE INVOICE RELATING TO A PARTICULAR STAGE OR OVERALL AND PAYABLE FOR EACH CALENDAR DAY, WITH A MAXIMUM LIMIT OF 15% (FIFTEEN PERCENT) OF THE VALUE OF THE CONTRACT.

a) Inception report: (5 copies)

This report shall briefly describe the mobilization and establishment status of the Consultant, specific staffing plan, the updated work plan the Consultant proposes to follow in carrying out the assignment based on the Consultants initial findings and the work done by the time of submission of the report, details of any constraints or inputs required from the Employer and such remarks as deemed appropriate. This report shall be submitted not later than fifteen (15) calendar days from the date of commencement of the services.

b) Draft Detailed Engineering Design Reports, Draft Drawings and Draft Tender Documents (5 copies)

The Draft Design Reports shall summarize the findings, analyses, results, and recommendations of the detailed engineering design, and shall consist of water tanks drawings, topographical data, setting out data, bills of quantities, Draft bidding documents, draft estimate of construction costs (and its price analysis) all supporting material.

The draft detailed design report shall comprise all the assumptions and criteria used in the analysis and design of the work together with all details and standards used.

All design details including calculations for the water tanks and other structures shall be submitted in hard copy and pen drive (flash disc).



The Draft Detailed Design Report shall summarize the findings, analyses, results, and recommendations of the Draft detailed engineering design of the Water tanks and other facilities to be found at water tank sites. The draft detailed design report shall comprise all the assumptions and criteria

(iii) Draft Detailed Engineering Design Report (5 copies)

In addition, electronic copies of the topographic data saved in MS Excel and topographic drawings in DXF or DWG format shall be submitted in CD ROMs to the Client and become his property. The Draft Detailed Design Report shall summarize the findings, analyses, results, and recommendations of the Draft detailed engineering design of the Water tanks and other facilities to be found at water tank sites. The draft detailed design report shall comprise all the assumptions and criteria

Monumentation of all primary control points shall be made using 12 mm steel pins, 60cm length, embedded in concrete cast in-situ. The description cards for the control points shall be prepared and submitted to the Client and detailed in the report to be submitted to the Client for future reference.

The co-ordinates of all points picked shall be in Universal Transverse Mercator (UTM) system and shall be tied to the National Survey Grid, and levels related to the National Benchmarks.

The report shall summarize the all activities which were carried out during Topographical Surveys of respective water tanks. As stated in section 6.1.4, Topographical Surveys shall follow the Land Surveying and Mapping Standards of Tanzania, and shall be recorded in standard survey field books/electronic data book, which shall be submitted in this report and become the property of the Client at the completion of the assignment.

(ii) Draft Topographical Survey Report (5 copies)

The report shall summarize all soils, materials and geotechnical findings and their adoption to the design of water tanks foundation and structures, quantities and qualities of materials to be available for the proposed works, material sources with the corresponding excavation depths, tests undertaken and corresponding results and any other related information in respect of materials quarries.

(i) Draft Geotechnical and Materials Investigation Report (5 copies)

The draft final design report shall be submitted together with the following appended reports within one (1) month from the commencement of detailed engineering design Phase.

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used in the analysis and design of the work together with all details and standards used.

(iv) Draft Detailed Engineering Drawings (5 copies)

The drawings should comprise of five (5) sets of photo reduced to A3 size papers. The drawings shall include cross sections drawings, layout plans showing contours and other details, Typical Sections, Typical Drawings Details and Specific Details of all structures, together with all Schedules required and a Schedule of Drawings. All drawings should clearly show: - Designed by, approved by, with the name and signature of the responsible engineer and the date clearly displayed.

(v) Draft Engineering Cost Estimates (5 copies)

The Draft Engineering Cost Estimates for proposed works and services shall be in the form of completed Bills of quantities. The reports shall be as stated in section 6.1.6 of these terms of references and they shall be submitted together with other reports. The Consultant shall give cost estimates entirely in Tanzania currency.

(vi) Draft Tender Documents (5 copies)

The Consultant shall prepare Draft Tender documents using the most recent Standard Procurement Documents in accordance with the current Standard Tendering Documents prepared by the PRA for medium and large works under National and International Competitive Tendering – prepared in December 2018, revised in June 2019. The documents shall be prepared as stipulated in section 6.1.8 of these terms of references.

c) Final Detailed Engineering Design Reports, Detailed Engineering Drawings and Final Tender Documents (10 copies)

The Final Detailed Design reports shall be submitted not later than fifteen (15) calendar days from the date of approval by Client of Draft Detailed Design Reports and Draft Tender Documents. These reports shall incorporate all revisions deemed necessary arising from comments received from the Client and other stakeholders. The submission will include the following copies:

(i) Final Geotechnical and Materials Investigation Report (10 copies)

(ii) Final Topographical Survey Report (10 copies)

(vii) Final Detailed Engineering Design Report (10 copies)

(viii) Final Detailed Engineering Drawings (10 copies)

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The Consultant shall be fully responsible for the supervision of the construction in accordance with project documents. The Consultant shall exercise the powers of the Engineer in all matters concerning the contract and the execution of the works. He shall supervise the construction works with due diligence and efficiency and in accordance with sound technical, administrative, financial and economic practices. He shall perform all duties associated with such tasks to ensure that only the best construction practices are followed and that the final product is in all

Water Tanks
Activities during Phase II: Supervision of Construction of

6.2

After delivery of all FINAL REPORTS AND DOCUMENTS, the originals of Pen drive/flash disc with the software used and agreed by the Client, such as Microsoft word for word processing, Microsoft Excel for spreadsheet, Microsoft project for project management, AutoCAD etc.

RECORD OF DOCUMENTS

| | |
|----------|--|
| M + 1.5 | Final Design Report and Tender Documents |
| M + 1.25 | Receipt of Client's comments |
| M + 2.0 | Draft Final Design Report and Tender documents - |
| M + | Inception Report |
| M + | Commencement of services |

The following time frame/schedule (in Three months) shall be adhered to in carrying out the Engineering Design and Preparation of Tender Documents. As such the various deliverable shall be submitted not later than the dates shown below: -

PROJECT TIMING FOR PHASE I

The Final Detailed Design report shall comprise all the revised assumptions and criteria used in the analysis and design of the work together with all details and standards used. All design details including calculations for the water tanks and other structures shall be submitted in Hard Copy and Soft Copy (via pen drive flash disc).

- (ix) **Final Engineering Cost Estimates (5 copies)**
- (x) **Final Tender Documents (10 copies)**



(1) Provide senior staff in any site visits conducted during the construction bidding process and (i) record comments and questions raised by potential bidders for submission to the Employer's Representative and (ii) advise Employer and Employer's Representative of any issues involving the construction bidding process, documentation or other factors that may affect selection of a construction contractor.

In particular, the Consultant's duties and responsibilities shall include but not be limited to:

- (i) Participation in site visit (s) for construction contractors organized by the Employer Representative in the event of contract award,
- (ii) Supervision of the works contract to ensure that the works comply with the approved design, drawings, specifications, conditions of contract and sound engineering practice,
- (iii) Approval of Contractor's working drawings,
- (iv) Ensuring the construction works follows Environmental Management Plan (EMP) and ensuring the implementation of the Environmental Impacts mitigation measures,
- (v) Ensuring the construction works comply with all safety requirements in particular to protect the workers and members of the public,
- (vi) Ensuring the measurement, certification and payments to the Contractor are in compliance with the Contract including valuation of any variation orders and settlement of claims,
- (vii) Preparation of monthly, quarterly, semi-annual and final construction report,
- (viii) Preparation of the project completion report.
- (ix) Supervision of maintenance activities during the defects liability period

The specific objectives of the Supervision Services briefly include but not limited to the following:-

6.2.1 Specific Objectives of the Supervision Services

respects equal to, or better than that specified, at the most economic costs and is carried out in full compliance with the governing specifications including all the environmental and safety requirements.

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- (2) Prepare a quality assurance plan in consultation with the Contractor, including arrangements to check the quality of materials brought to the site, to ensure that the quality of construction is consistent with the technical specifications, and to maintain test records
- (3) Check and establish that the contractors mobilizes and supplies to the contract all plant, equipment and machinery that have been committed in the tender and ensure that all such items of plant remain on the contract until their release has been authorized. This work shall include the inspection and evaluation of all Contractor's installations, shops and warehouses and other accommodation to ensure compliance with the terms and conditions of the Contract.
- (4) Check and establish that the contractor has delivered the EMP, Method Statements, Safety Documentation etc in accordance with the Contract and approvals are given in a timely manner in accordance with the Contract
- (5) At all times take necessary measures and provide appropriate advice to the Employer's Representative to enable the construction contract to be completed in a timely and cost effective manner, in conformity with the contract conditions and specifications.
- (6) Together with Employer's Representative, liaise with the respective Authorities to ensure that the assessment and compensation of properties if any within the sites of construction of water tanks is done in order for the contractor to get free possession of site
- (7) Identify and locate all beacons and benchmarks to enable the Contractor to set out and construct the works and hand over to the Contractor before commencement of the works.
- (8) Perform or oversee all laboratory and field testing of Contractor's work, materials and products required to ensure that the quality as specified in the Contract is attained. Review all certificates of inspections, tests and approvals.
- (9) Keep updated all records including reports, works diaries, correspondence, instructions given to contractor(s), test records, measurement and quantity calculations, payment records and all other relevant documents pertaining to the works operations and supervision contracts.

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(14) Prepare incident reports, covering accidents, environmental and other incidents, including pictures of the events and take appropriate follow on action

(13) Monitor implementation of the (Health and Safety Plan) HSP. Check and ensure that the Contractor has taken suitable measures with regard to the safety and health of its workers (provision of potable water, lodging, mosquito nets, and first aid kits), site safety, and accident prevention measures. Inspect the security and safety aspects of construction and temporary works to ensure that every reasonable measure has been taken to protect life and property

- activities.
- Minimize the risk of soil erosion in all contractors completion of works.
- Shape and landscape all borrow pits and quarries on installation of fire extinguishers and first aid kits on site.
- clothing and accessories in high risk areas. Enforce public and enforce the wearing of appropriate safety with this project, etc. where appropriate to protect the around water tanks sites, at other excavations related Management Plan and installs temporary fencing the contractor follows the Contractor's Environmental Ensure safety during construction by ensuring that
- Minimize noise, vibrations and dust levels,
- produced during construction activities,
- runoff waters and proper handling of all garbage
- Minimize air, water and soil pollution by controlling

(12) Monitor the implementation of Environmental Management Plan (EMP). Review environmental mitigation measures proposed by the Contractor in consultation with the Environmental Specialist of the Employer's Representative. In particular, monitor the following recommendations for environmental protection during implementation of the project:-

(11) Prepare and submit consolidated monthly reports on physical and financial status, site meetings, contractual matters, etc., with recommendations for action by the Employer's Representative.

(10) Review and comment or recommend acceptance of Contractor's performance security, and contractually required insurances set forth in the construction contract.

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- (15) Verify that land acquisition and any physical resettlement have been carried out in accordance with the Resettlement Action Plan and that compensation or restoration for loss of assets or land has been made prior to the start of construction in each relevant road segment.
- (16) Arrange and chair at monthly site and progress meetings on site, and take notes and prepare the Minutes of Site Meeting and distribute the same minutes of meetings to each party accordingly.
- (17) Arrange and make public presentations of the work done to date at the request of Employer's Representative.
- (18) Prepare control charts of the main activities and a project master schedule, indicating both past performance and forecasts for completion including time involved in each case.
- (19) Measure quantities of works satisfactorily carried out and certify monthly and final payment certificates for consideration by the Employer. Monthly certificates to be submitted to the Employer for payment shall include the total cost of the works executed in foreign and local currency (net of taxes and duties).
- (20) Record, examine and evaluate all claims submitted by the Contractor and submit timely recommendations thereof for consideration by the Employer's Representative.
- (21) When the implementation of the civil works contract reaches a value of 40% and 80% of the initial construction contract cost, Consultant shall prepare and submit a detailed progress report with updated cost of the civil works contract, implementation schedules and substantiate any request related to additional funding, if such is needed to full completion of the project.
- (22) Negotiate with the contractor the unit rates for new items of works in the contract and submit to the Employer's Representative for review and approval.
- (23) Prepare and submit to the Employer's Representative the final cost of executed works.

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- (24) Approve shop drawings provided by the contractor and prepare a final project construction report and incorporating the As-built drawings prepared by Contractor.
- (25) The Engineer may, with prior consultation with and approval by the Employer's Representative effect changes that will improve design or specification for the works. Such changes shall not increase the contract time nor increase in contract sum resulting from such changes.
- (26) Prepare and submit Variation Orders for implementation of changes to the Works to the Employer's Representative for consideration.
- (27) The Engineer shall prepare a Supervision Manual which will lay out procedures to be followed during the execution of the works. The Manual will also serve as a basis for on-the-job training of the Employer's staff and any visiting students during the implementation of the works contract.
- (28) Maintain a site diary on a daily basis with the contents and format of which will be agreed with the Employer.
- (29) Inform the Employer's Representative about problems or potential problems, which may arise in connection with the Works Contract and make recommendations to the Employer for possible solutions.
- (30) Supervise the Contractor's contractual obligation on HIV/AIDS prevention. For this aspect of the supervision services, the Consultant should include a qualified Environmentalist or Social Expert as part of the supervision team.
- (31) In the event of adjudication or arbitration, provide the necessary personnel and expertise to advise and assist the Employer and Employer's Representative in any such process and prepare any further analysis of the contractor's claims submissions as may be necessary to assist the Employer in the presentation of his case.
- (32) Carry out inspections, prepare a Defects list and draft the "Substantial Handing Over Certificate" before commencement of "Defects Liability Period."
- (33) At latest within fifteen (15) days following final inspection of the completed works, agree with the Contractor on the final measurements of the works, and prepare the final payment

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- The Consultant's state of mobilization
- Any changes to the composition of the Consultant's team
- Proposed methodology for carrying out the services, including quality, progress and cost control, and ensuring compliance with environmental, H&S, PPSA Plan and other requirements
- Proposed site communication procedures and record keeping
- Detailed program of work, showing time, duration and personnel, as well as inter-relationship between activities

The Consultant shall prepare an Inception Report within fifteen (15) days after commencement date of Construction Contract. This report shall include results of the review of the contractor's work program, any modifications thereto, status of the consultant and contractor's mobilization and any other matter requiring the Employer's attention and action. This report shall be prepared and submitted in five (5) copies to the Employer and the report shall include at least the following:

a) Inception Report

During Supervisory activities, the Consultant shall prepare and submit to Employer the following reports and documents as listed below, in English, and in a format approved by Employer. Five (5) hard copies and Electronic copies of each report shall be submitted to Employer. Electronic copies shall be in Microsoft Office format and in Adobe pdf format. All reports and documents relevant to the services, including maps, field survey notes, computer programs, shall become the property of Employer.

6.2.2 Reports for Phase II of Assignment

(35) At all times take necessary measures and provide appropriate advice to the Employer's Representative to enable the construction contract to be completed in a timely and cost effective manner, in conformity with the contract conditions and specifications.

(34) Together with the Final Payment Certificate and Project Final Account, Consultant shall prepare "Project Completion Certificate" in the format agreed with Employer and ensure the document is signed and stamped by Employer and issued to the Contractor accordingly.

Payment certificate should be accompanied by Project Final Account which shall also be agreed with Contractor and submitted to the Employer Accordingly

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c) Detailed Progress Reports

- Photographs
- Copies of site meetings
- Information on Contractor's equipment, personnel and materials on site
- Weather information and charts,
- Activities of the Contractor
- Activities of the Engineer
- Schedules of variations orders and claims
- Cash flow forecasts
- Program for the coming month, and revised program for the completion of the Project, if any
- Discussion of major problems and recommendations to address same
- Outstanding RAP issues, if any
- Environmental, health and safety issues and mitigation measures
- Quality of construction
- Physical and financial progress of the Works and comparisons with as-scheduled progress, in tabular and graphical form
- Summary of relevant Consultant's and Contractor's Contract data, both financial and physical

These reports shall cover at least the following:

The Consultant shall prepare progress reports every month within five (5) days after the end of each reporting period for the duration of the contract. These are to be submitted in 5 copies and should reach the Employer not later than ten (10) days after the end of the month being reported on.

b) Monthly Progress Reports

- Format of Monthly Progress Reports, etc

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- Summary of the principal difficulties encountered during construction and the means employed to overcome them,
- Changes (if any) made in the original designs, modifications to specifications and conditions of contract,
- Financial and physical summary of the Works including:
 - details of the overall project costs (construction and supervision) with justification for any significant differences

The Project Completion Report shall include the following among others:

Within fifteen (15) calendar days after completion of the Works, the Consultant shall prepare the Final Project Completion Report in five (5) copies. The report shall be submitted not later than one month after the Final Completion of Construction Works. The report should enable the Employer in the future to know the type, quality and quantity of materials used and all information which together with the "As-built Drawings" (i.e. 5 copies to be submitted by Contractor) and specifications will help the Employer in the maintenance of the operation and maintenance of the Water Tanks.

e) Final Project Completion Report

Consultant shall also submit a soft copy of the Report to Employer. Within fifteen (15) calendar days after completion of the Works, the Consultant shall prepare the Final Project Completion Report in five (5) copies. The report shall be submitted not later than one month after the Final Completion of Construction Works, the Consultant shall inspect the site in presence of Employer and Contractor representatives and prepare and submit a Substantial Project Completion report to Employer. The report should contain updated cost of the project works contract, a report of site inspection and a list of snag activities, implementation schedules for the snag works, any unresolved claims and their recommendations for employer and any information Consultant may deem necessary to include in the report. Five (5) copies of the report shall be sent to the Employer. Consultant shall also submit a soft copy of the Report to Employer.

d) Substantial Project Completion Report

When the implementation of the project works contract reaches a value of at least 90% of the final construction contract costs, and when the main works are assumed to be completed (i.e. the tanks are proven to be completely functional) and upon a request from Contractor for Substantial Completion of Works, the Consultant shall inspect the site in presence of Employer and Contractor representatives and prepare and submit a Substantial Project Completion report to Employer. The report should contain updated cost of the civil works contract, implementation schedules and substantiate any request related to additional funding, if such is needed to full completion of the project. Five (5) copies of the report shall be sent to the Employer. Consultant shall also submit a soft copy of the Report to Employer.

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The Consultant shall oversee the works during the defects liability period. Prior to commencement of the defects liability period, the Engineer shall deliver a Substantial Completion Certificate to the Contractor. For the purpose of carrying out the services, the consultant shall assign one key person and prepare and issue final certificate after the snag works have been completed. During this period the consultant shall be required to

6.3 Defects Liability Period

In addition to the above reports, the Consultant shall prepare and submit to Employer other reports as necessary and as may be instructed by Employer.

f) Special Reports

- with the original costs and
- utilization of provisional and price variation and physical contingencies sums,
- cumulative monthly payments to the Contractor, by date and number of payment certificate and break down into foreign and local currencies and including a similar payment schedule for supervision services.
- Project Final Account.
- Summary of contract data and variation orders
- Assessment of claims presented by Contractors,
- Relevant comments on the Project that may help in the future implementation of similar projects,
- As-built drawings from Contractor, in both pdf and source data format,
- Proposed future maintenance plans to ensure sustainability functioning of the tanks,
- Important Project records, properly indexed and presented as annexes to the Main Report and all data in pdf form on CDs
- Picture album in hard copy and electronic formats of the various site activities at different stages,
- Video documentary on the Project in digital format in mpeg or similar format

draw the attention of the contractor to any defects if and when noticed and shall supervise such remedial works.

6.4 Additional Services

The Consultant shall provide any other additional services if so requested by the Employer, at rates and under conditions applicable in the Contract.

7. CONSULTANT STAFF

The Consultant shall provide the Staff as required in these Terms of References. The Staff for Phase I and Phase II of the assignment shall be as described here under:

7.1 Expected Key Personnel and their input during Phase I of the Assignment

The professional staff to be provided by the Consultant in Phase I of the assignment is estimated at 11.5 staff- months covering the services of Team Leader/Structural Engineer, Water Engineer, Geotechnical Engineer, Civil Engineer, Electrical Engineer and Topographical Surveyor. The services for Phase I are anticipated to be completed within 3 months from the Contract Effective Date. The duties/responsibilities and qualifications of the key staff for Phase I are as indicated below:

i) Team Leader/Snr. Structural Engineer

The Team Leader shall be responsible for the proper conduct of the entire Design exercise and shall be the principal contact person between the Consultant's team and the Client.

The Team Leader must be a Registered Engineer with at least a degree in Civil Engineering. Postgraduate qualification in Structural Engineering is preferable. He/She must have at least fifteen (15) years of cumulative experience related to structural studies and designs. He/She must have served in a similar capacity on at least three (3) projects of similar magnitude and complexity in the past 10 years. In addition, he/she must have a working experience of at least of 3 years in sub-Saharan Africa. Proficiency in written and spoken English and Kiswahili is mandatory.

ii) Structural/Civil Engineer
[1No]

The Structural/Civil Engineer shall be responsible for assisting the Senior Structural Engineer in carrying out Structural design of the Water tanks. He shall also be responsible for design of Civil Works associated with the

water tanks works at the sites. He will also conduct and supervise the materials investigation with a view to achieving optimal design and construction strategy. The Structural/Civil Engineer shall also carry out design of foundations of the water tanks as per requirement and as per results of geotechnical investigations at sites.

He/She must be a registered Civil Engineer with at least a degree in Civil Engineering. A postgraduate qualification in Structural/Civil is preferable. He/She must have a minimum of ten (10) years of specific experience in Structural and Civil works, materials testing, soils investigation and Structural and Civil designs. He/She must have served as Structural/Civil Engineer on at least three (3) projects of similar magnitude and complexity in the past 10 years. In addition, he/she must have a working experience of at least 3 years in Sub-Sahara Africa. Proficiency in written and spoken English and Kiswahili is mandatory.

!!!!] Water Engineer [1No]

The Water Engineer will work hand in hand with the Structural Engineer in the whole design exercise and ensure the design is safe and that the designed tanks shall supply waters to intended network in a safe and portability manner.

He/she must be a Registered Engineer with minimum of first degree in Water/ Water resource Engineering. A postgraduate qualification in Water/Sanitation Engineering is preferable. He/She must have at least ten (10) years of working experience in carrying out water projects related to water supply infrastructures. The ability to use appropriate water structures design models is added advantage. He/She should have served as a Water Engineer on at least three (3) projects of similar magnitude and complexity within the last 10 years. In addition, He/She must have at least 3 years working experience in Sub Saharan Africa. Fluency in written and spoken English and Kiswahili is mandatory.

iv] Geotechnical Engineer [1No]

The Geotechnical Engineer shall be responsible for conducting and overseeing the geotechnical investigation with a view to achieving optimal design and construction strategy. The Geotechnical Engineer shall assist the Structural Engineer in carrying out foundation design and should be conversant with current practices in geotechnical investigations and modern pilling construction techniques.

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He/She must be a registered Surveyor with a degree in land surveying. Post graduate qualification in land surveying is preferable. He/She must

The Topographical Surveyor shall be responsible for conducting and supervising the survey team. He/she will be responsible for planning of the fieldwork, select known survey reference points, and determine the precise location of important features in the survey area. He/she shall be responsible for searching legal records, look for evidence of previous references survey points (geodetic reference points and national benchmarks) and analyze the data to determine the location of boundary lines and record the results of the survey, verify the accuracy of data, and prepare plans, maps, and reports of project sites. The surveyor shall mark all properties to be affected by the proposed project to facilitate valuation for compensation.

vi) Topographical Surveyor [1No.]

He/She must be a registered Electrical Engineer with at least a degree in Electrical Engineering. A postgraduate qualification in Electricity is preferable. He/She must have a minimum of ten (10) years of specific experience in design and supervision of Electrical works. He/She must have served as Electrical Engineer on at least three (3) projects of similar magnitude and complexity in the past 10 years. In addition, he/she must have a working experience of at least 3 years in Sub-Sahara Africa. Proficiency in written and spoken English and Kiswahili is mandatory.

v) Electrical Engineer [1No]

He/she must be a registered Engineer with at least a degree in Geotechnical or Civil Engineering. A postgraduate qualification in Geotechnical Engineering is preferable. He/she must have a minimum of ten (10) years cumulative experience in geotechnical investigations and foundation designs. He/she must have served as a Geotechnical Engineer on at least three (3) projects of similar magnitude and complexity in the last ten (10) years. He/she must have at least three (3) years working experience in Sub Saharan Africa. Proficiency in both written and spoken English and Kiswahili is essential.

The Electrical Engineer shall be responsible for carrying out all Electrical Works design and should be conversant with current practice in testing of Electrical Works and Electrical construction techniques.

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i) Project Director [1No.]

The professional staff to be provided by the Consultant in Phase II of the assignment is estimated at 45 staff- months covering the services of Project Director, Resident Engineers, Works Inspectors, Environmental Expert, Electrical Engineer and Topographical Surveyors. The services for Phase II are anticipated to be completed within 8 months from the date of effective start of Works Contract. The duties/responsibilities and qualifications of the key staff for Phase II are as indicated below:-

7.2 Expected Key Personnel and their input during Phase II of the Assignment

In addition to the above key staff the Consultant shall determine the Support and Backup staff deemed necessary to assist with successful completion of the assignment. However, their qualifications will not be considered in the evaluation of the proposals.

| S.No | KEY STAFF | MONTHS |
|------|-------------------------------------|--------------------|
| 1. | TEAM LEADER/SNR STRUCTURAL ENGINEER | 1.5 |
| 2. | STRUCTURAL/CIVIL ENGINEER | 1.5 |
| 3. | QUANTITY SURVEY | 1.0 |
| 4. | WATER ENGINEER | 1.5 |
| 5. | GEOTECHNICAL ENGINEER | 2.0 |
| 6. | ELECTRICAL ENGINEER | 1.0 |
| 7. | TOPOGRAHICAL SURVEYOR | 1.0 |
| | TOTAL ESTIMATED STAFF INPUT | 9.5 |
| | KEY STAFF | STAFF INPUT |
| | | MONTHS |

The estimated Key Staff monthly input during Phase I of the assignment is as shown in the table here under:

Estimated Staff input Months for Phase I of the Assignment

have at least ten (10) years of cumulative experience related to Land surveying activities. He/She must have served as a Topographical Surveyor on at least three (3) projects of similar magnitude and complexity within the last 10 years. In addition, He/She must have at least 3 years working experience in Sub Saharan Africa. Proficiency in written and spoken English and Kiswahili is mandatory.

The Project Director shall be responsible for the proper conduct of the entire supervision exercise and shall be the principal contact person between the Consultant's team and the Client. The Project Director shall guide and support the site supervision staff for the duration of the project. He shall be based at the Consultant's head office and shall coordinate any specialist services that may be required from the Consultant.

The Project Director must be a Registered Engineer with at least a degree in Civil Engineering. Postgraduate qualification in Civil Engineering is preferable. He/She must have at least fifteen (15) years of cumulative experience related to supervision of structural and Civil projects. He/She must have served in a similar capacity on at least three (3) projects of similar magnitude and complexity in the past 10 years. In addition, he/she must have a working experience of at least of 3 years in sub-Saharan Africa. Proficiency in written and spoken English and Kiswahili is mandatory.

ii) Resident Engineers [2No.] – {One for Unguja and One for Pemba}

The Resident Engineers must be Civil Engineers with a minimum of fifteen (15) years of extensive experience related to construction supervision and contract administration under FIDIC Conditions of Contract.

They must have served as a Senior Resident Engineer or equivalent capacity in at least three (3) construction projects of similar magnitude and complexity. They shall be a registered Civil Engineers. They shall head the site staff and shall be responsible for all technical and administrative aspects on site and will be stationed on site at all times except for scheduled meetings off site. In addition, they must have a working experience of at least of 3 years in sub-Saharan Africa. Proficiency in written and spoken English and Kiswahili is mandatory.

iii) Works Inspectors [2No.] – {One for Unguja and One for Pemba}

The Inspectors of Works must be Civil Engineers with a minimum of six (6) years of extensive experience related to construction supervision and contract administration under FIDIC Conditions of Contract.

They must have served as Inspector of Works or equivalent capacity in at least two (2) construction projects of similar magnitude and complexity. They shall be a registered Civil Engineers. They shall be assisting the

FORM TECH-1: TECHNICAL PROPOSAL SUBMISSION FORM

Dar es Salaam, 09th January 2022

To:

Director General
Zanzibar Water Authority (ZAWA),
P.O. Box 460,
Mabuluu - Zanzibar.

We, the undersigned, offer to provide the consulting services for Design and Supervision of Construction of On-Ground and Elevated water Tanks in Unguja and Pemba Islands in accordance with your Request for Proposals dated 23rd December 2021 and our Proposal. "We are hereby submitting our Proposal, which includes this Technical Proposal and a Financial Proposal sealed in a separate envelope.

We hereby declare that:

(a) All the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification by the Client and/or may be sanctioned by the Government.

(b) Our Proposal shall be valid and remain binding upon us for the period of time specified in the Data Sheet, Clause 12.1.

(c) We have no conflict of interest in accordance with ITC 3.

(d) We meet the eligibility requirements as stated in ITC 6, and we confirm our understanding of our obligation to abide by the Government's policy in regard to corrupt and fraudulent or prohibited practices as per ITC 5.

(e) In competing for (and, if the award is made to us, in executing) the Contract, we undertake to observe the laws against fraud and corruption, including bribery, in force in Zanzibar.

(f) Except as stated in the Data Sheet, Clause 12.1, we undertake to negotiate a Contract on the basis of the proposed Key Experts. We accept that the substitution of Key Experts for reasons other than those stated in ITC Clause 12 and ITC Clause 28.4 may lead to the termination of Contract negotiations.

(g) Except Our Proposal is binding upon us and subject to any modifications resulting from the Contract negotiations.

(h) We are / are not under sanction by the Government, the WB, AfDB, IADB, or the AsDB for any action of corruption and fraud in accordance with ITB 3. [If under sanction, please provide details including date of start of sanction and duration].

We undertake, if our Proposal is accepted and the Contract is signed, to initiate the Services related to the assignment no later than the date indicated in Clause 29.2 of the Data Sheet.

~~1/1~~

~~16/01/2022~~
~~[Signature]~~

~~10/01/2022~~
~~[Signature]~~

~~10/01/2022~~
~~[Signature]~~

10/01/2022
[Signature]

10/01/2022
[Signature]

Contact information (phone and e-mail): Phone: +255 22 2183395 & 0754 386756
Email: nimeta@nimetaconsult.co.tz

Address: P. O. Box 15651, Dar es Salaam.

In the capacity of: MANAGING DIRECTOR

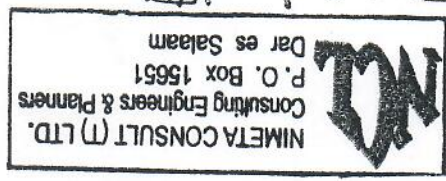
Name of Firm (firm's name or JV's name): NIMETA Consult (T) Ltd.

Name and Title of Signatory: Eng. Emmanuel Taseni, Managing Director

Authorized Signature (full and initials): [Signature]

Yours sincerely,

We remain,



Prepared by NIMETA Consult (T) Ltd

Summary of Costs

| S.No | COSTS COMPONENT |
|------|---|
| 1 | Staff Remuneration Phase I - Design Works |
| 2 | Staff Remuneration Phase II - Supervision Works |
| 3 | Reimbursable Expenses for Phase I and II |
| 4 | Sub - Total (Including all taxes and duties except VAT payable by Client) |
| | TAXES TO BE DISCUSSED AND FINALIZED AT NEGOTIATIONS |
| 5 | 18 % VAT |
| 6 | Total Amount of Taxes |

FORM FIN-2: SUMMARY

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Prepared by NIMETA Consult (T) Ltd

Summary of Costs

| CURRENCY | AMOUNT |
|----------|----------------|
| Tshs | 107,750,000.00 |
| Tshs | 457,000,000.00 |
| Tshs | 85,900,000.00 |
| Tshs | 650,650,000.00 |
| Tshs | 117,117,000.00 |
| Tshs | 117,117,000.00 |

| |
|---------------------|
| ARY OF COSTS |
|---------------------|

3 FORM TECH-2: CONSULTANT'S ORGANIZATION AND EXPERIENCE

3.1

Consultant's Organisation

NIMETA Consult (T) Ltd. has been working extensively in the Civil Engineering field including road projects at feasibility study stage, base line study stage, and design stage to works supervision stage. The firms' experience is based on carrying out technical studies, assessments, designs and supervision of both construction and rehabilitation works.

(a) Eligibility

NIMETA Consult (T) Ltd. is a multidisciplinary local Consultancy firm, founded in Tanzania and legally incorporated under the Companies Ordinance (Cap 212) in 2001 and registered with Engineers Registration Board (ERB) in 2002 as Local Engineering Consulting Firm. NIMETA is also a member of the Association of Consulting Engineers (Tanzania) (ACET); the association is affiliated to FIDIC.

The firm is wholly owned by Tanzanian Professionals and is currently operating through its office located in Dar es Salaam city centre.

(b) Description of services offered by the Firm

The firm has a variety of experienced engineers with vying capabilities to offer services in the following areas of expertise:

- ✦ Civil Engineering,
- ✦ Project Management and Contract Administration,
- ✦ Structural and Bridge Engineering,
- ✦ Highway/Road Engineering,
- ✦ Pavement Evaluation and Monitoring,
- ✦ Water Resource and Environmental Engineering,
- ✦ Building Services,
- ✦ Soils and Construction Materials Engineering,
- ✦ Geotechnical and Foundation Engineering,
- ✦ Technical Audit of Engineering Projects
- ✦ Construction Contracts Dispute Resolution and Arbitration
- ✦ Provision of Services for Procurement of Works, Goods and Services
- ✦ Training

NIMETA Consult (T) Ltd has the ability to provide all services mentioned above through its experience and organization. Through its widely experienced and knowledgeable staff, NIMETA can commission and deliver projects to the satisfaction of its esteemed Clients. The company is also capable of carrying out special assignment in house or in association with sub-Consultants and specialists.

Emphasis is placed on providing a completely comprehensive and integrated Consultancy service. These services embrace most aspects of management of engineering projects for which the firm has, on its staff, civil, structural, and electrical and mechanical engineers, geologists and environmentalists. It is the firm's policy to seek the most economical and suitable technical solution for any task or assignment.

(c) Staffing

The key to successful project delivery and outcomes resides in the quality and competence of the personnel involved in undertaking the work, in combination with the organisational support that is provided.

NIMETA recognises the need to ensure the right person is available and nominated for the project work. At this stage, NIMETA employs highly skilled staff with far reaching professional competence, experience and integrity. The culture of NIMETA is that of team work problem solving leading to sustainable solutions and Client's satisfaction.

For this project NIMETA Consult (T) Ltd have nominated professional staff that have:

- ✦ qualifications relevant to the specific tasks required under this project
- ✦ competencies (skills, knowledge and expertise) to carryout project tasks
- ✦ substantial relevant recent experience, applicable to the objectives of this project.

Detailed CV's of these staff are presented under chapter 09 of this proposal. These show the depth of experience of the professional staff proposed for this assignment.

(d) Company Organization

NIMETA has an internal organisation in which there are principally three (3) departments, including Civil and Environmental Engineering Department, Finance and administration, Department and Structural, Electrical, Mechanical and Services Engineering Department. Figure one below depicts the company organization chart describing internal organisation of the company.

The firm is wholly owned by Tanzanian Professionals and is also legally registered under the Companies Ordinance (Cap. 212) and currently operating through its office located in Dar es Salaam city center.

The board of directors is composed by the following personnel:

1. Eng. Emmanuel Tasei - Managing Director
2. Eng. Heri Sanga - Director
3. Mr. Barita Tasei - Director

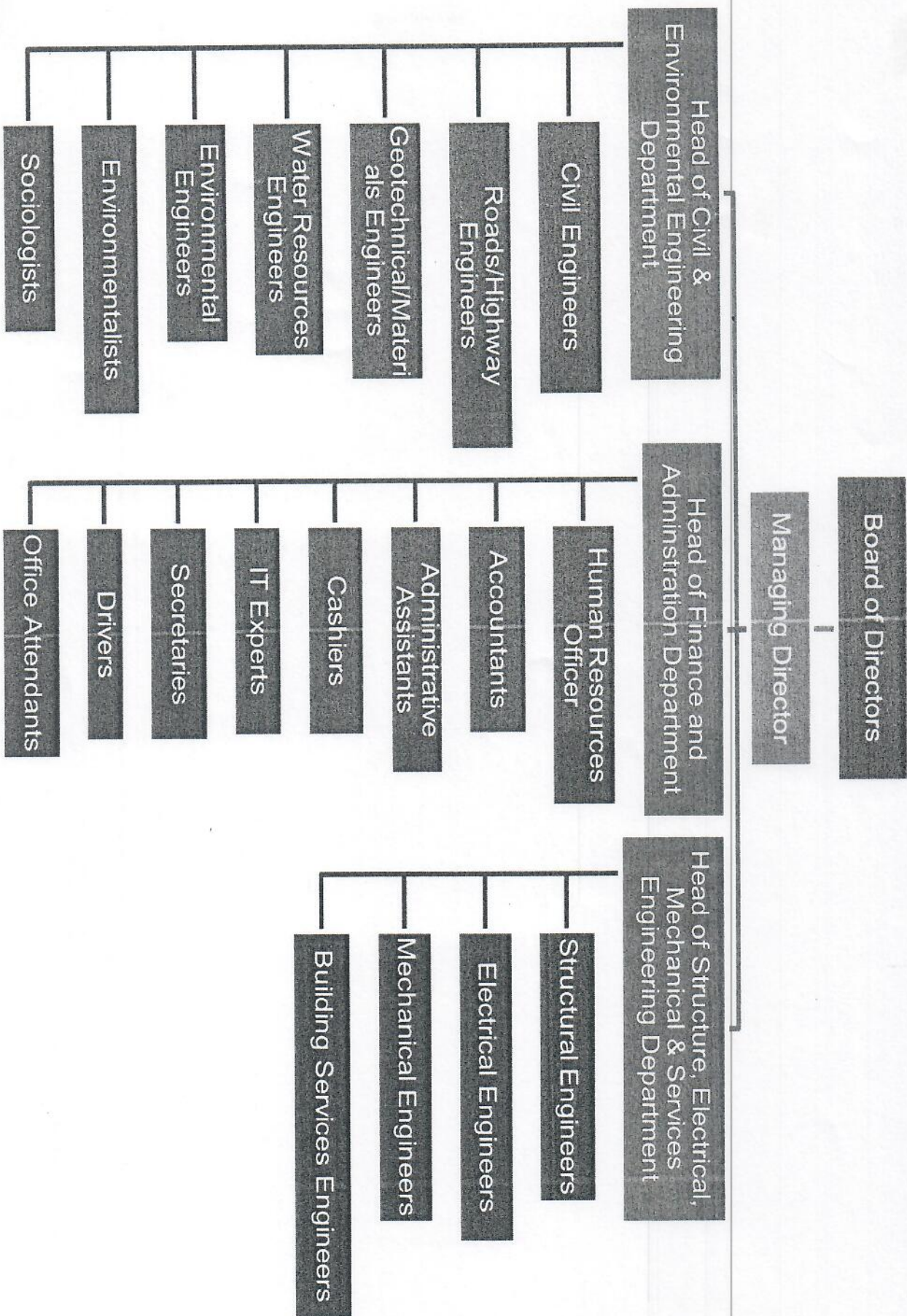


Figure 01: Company Organisation Chart

The proposed Staff organization chart is presented as figure 3 below;

5.4.2 Staffing

As explained earlier, the key to successful project delivery and outcomes resides in the quality and competence of the personnel involved in undertaking the work, in combination with the organisational support that is provided.

For this assignment, Consultant has proposed Key Personnel that have:

- > qualifications relevant to the specific tasks required under this project,
- > competencies (skills, knowledge and expertise) to carry out project tasks,
- > substantial relevant recent experience, applicable to the objectives of this project.

Detailed CVs of Key Personnel are presented under chapter 09 of this proposal. These show the depth of experience of the Professional Personnel proposed for this assignment. The Professional Personnel proposed are also shown in table 5 and table 6 below for Detailed and Supervision respectively;

Table 5 – Phase I; Proposed Key Personnel for the Assignment

| Name | Position | Years of Experience |
|-----------------------|--------------------------------|---------------------|
| Eng. Emmanuel Taseini | Snr Structural Eng/Team Leader | 28 |
| Eng. Patrick Marko | Structural/Civil Engineer | 16 |
| Eng. Henry Ngogolo | Water Engineer | 38 |
| Eng. Lwitiko Kalenga | Geotechnical Engineer | 16 |
| Dr. Geraldin Kikwasi | Quantity Surveyor | 25 |
| Eng. Raphael Ngeve | Electrical Engineer | 37 |
| Mr. Ambogo Ambogo | Topographical Surveyor | 33 |

Table 6 – Phase II; Proposed Key Personnel for the Assignment

| Name | Position | Years of Experience |
|-----------------------|------------------------------|---------------------|
| Eng. Emmanuel Taseini | Project Director | 28 |
| Eng. Heri Sanga | Resident Engineer Unguja | 19 |
| Eng. Patrick Marko | Resident Engineer Pemba | 16 |
| Eng. Adamu Lihawa | Inspector of Works Unguja | 7 |
| Eng. Innocent Mandago | Inspector of Works Pemba | 7 |
| Eng. Haruna Maulid | Environmental Expert | 13 |
| Eng. Raphael Ngeve | Electrical Engineer | 37 |
| Mr. Ambogo Ambogo | Topographical Surveyor | 33 |
| Mr. Huruma Kisaka | Safety/Health/Social Officer | 29 |

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STAFF ORGANISATION CHART: DESIGN AND SUPERVISION OF CONSTRUCTION OF ON-GROUND AND ELEVATED WATER TANKS IN UNGUJA & PEMBA ISLANDS

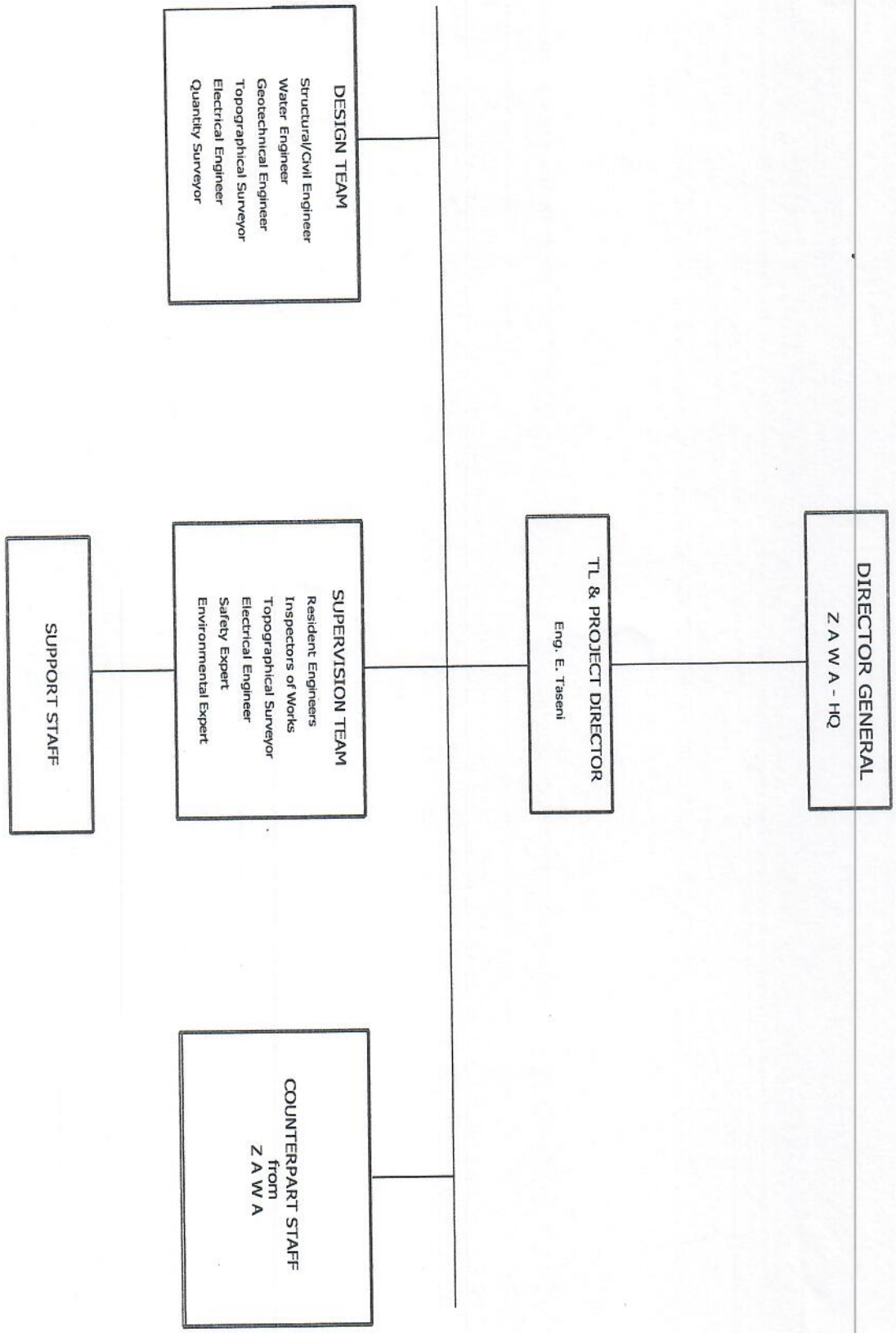


Figure 04: Staff Organisation Chart for the assignment.

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FORM TECH-5: WORK SCHEDULE AND PLANNING FOR DELIVERABLES

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This section of our Technical Proposal presents the Work Schedule for performing this Assignment. The Schedule has been prepared in form of bar Chart as per Form Tech-5 of the TOR. All the main activities have been listed and the duration of performing has been demarcated by the bar charts.

Technical Proposal

Consultancy Services for Design and Supervision of Construction of On-Ground and Elevated Water Tanks in Unguja and Pemba Islands

FORM TECH-6.2: CURRICULUM VITAE FOR PROPOSED PROFESSIONAL EXPERTS

This section of our Technical Proposal presents the Curricula Vitae of our proposed Professional Experts for performing this Assignment. The CV's have been prepared in the format suggested under Form Tech- 5A8 of the TOR. The CV's presented are for the Staff and in order shown in Table below:

CV of Experts for Phase I: Design Phase

| Name | Position | Years of Experience |
|-----------------------|--------------------------------|---------------------|
| Eng. Emmanuel Taseini | Snr Structural Eng/Team Leader | 28 |
| Eng. Patrick Marko | Structural/Civil Engineer | 16 |
| Eng. Henry Ngogolo | Water Engineer | 38 |
| Eng. Lwitiko Kalenga | Geotechnical Engineer | 16 |
| Dr. Geraldin Kikwasi | Quantity Surveyor | 25 |
| Eng. Raphael Ngeve | Electrical Engineer | 37 |
| Mr. Ambogo Ambogo | Topographical Surveyor | 33 |

CV of Experts for Phase II: Supervision Phase

| Name | Position | Years of Experience |
|-----------------------|------------------------------|---------------------|
| Eng. Emmanuel Taseini | Project Director | 28 |
| Eng. Heri Sanga | Resident Engineer Unguja | 19 |
| Eng. Patrick Marko | Resident Engineer Pemba | 16 |
| Eng. Adamu Lihawa | Inspector of Works Unguja | 7 |
| Eng. Innocent Mandago | Inspector of Works Pemba | 7 |
| Eng. Haruna Maulid | Environmental Expert | 13 |
| Eng. Raphael Ngeve | Electrical Engineer | 37 |
| Mr. Ambogo Ambogo | Topographical Surveyor | 33 |
| Mr. Huruma Kissaka | Safety/Health/Social Officer | 29 |

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CURRICULUM VITAE

**FORM TECH-6
CURRICULUM VITAE**

| | |
|--|---|
| POSITION TITLE AND NO. | K-1, TEAM LEADER/SENIOR STRUCTURAL ENGINEER |
| NAME OF EXPERT: | ENG. EMMANUEL TASENI |
| DATE OF BIRTH: | 15 TH DECEMBER 1963 |
| COUNTRY OF CITIZENSHIP/RESIDENCE: | TANZANIAN/TANZANIA |

Education:

| | | | | | |
|---------------------------|------------------------------------|-----------------------|-------------|---------------------------------|----------------------------|
| College/University | University of Dar es Salaam (UDSM) | Dates Attended | 1999 - 2000 | Degree /Diploma attained | M. Sc. Highway Engineering |
| | University of Dar es Salaam (UDSM) | | 1990 - 1993 | | B. SC. Civil Engineering |

Employment record relevant to the assignment:

| | | | | | | | |
|---------------|--------------|---|--|----------------|----------|---|--|
| Period | 2002 to date | Employing Organization and title/position. Contact information for Reference | Managing Director, NIMETA Consult (T) Ltd P.O. Box 15651, Dar es Salaam Tel: +255-22-2183395 Fax: +255-22-2184191 | Country | Tanzania | Summary of Activities performed relevant to the assignment | Design and supervise construction projects in the capacity of Team Leader, Senior Highway Engineer, Project manager, and Resident Engineer |
|---------------|--------------|---|--|----------------|----------|---|--|

| | | | | | | | |
|---------------|-------------|---|---|----------------|----------|---|--|
| Period | 2001 - 2004 | Employing Organization and title/position. Contact information for Reference | Principal Research Officer, Contractors Registration Board (CRB), Tanzania For Reference: Registrar, CRB P.O. Box 13374 Dar es Salaam Tel: +255-22-2131169 Fax: 255-22-2137964 | Country | Tanzania | Summary of Activities performed relevant to the assignment | Review and update Registered Contractors companies for classification with respect to technical experience and resources and technical (plant/equipment and technical personnel) |
|---------------|-------------|---|---|----------------|----------|---|--|

| | | | | | | | |
|---------------|---------------------------|---|--|----------------|----------|---|--|
| Period | July 1997 to January 1998 | Employing Organization and title/position. Contact information for Reference | Senior Civil Engineer, Kahama Mining Corporation | Country | Tanzania | Summary of Activities performed relevant to the assignment | Carry out design and supervision of civil works including roads and structural works, Responsible in preparation of tender documents and costs estimates |
|---------------|---------------------------|---|--|----------------|----------|---|--|

| | | | | | | | |
|---------------|-----------------------|---|-------------------------|----------------|----------|---|---|
| Period | July 1995 - June 1997 | Employing Organization and title/position. Contact information for Reference | Tutor/Research Engineer | Country | Tanzania | Summary of Activities performed relevant to the assignment | Research activities on road/highway engineering materials |
|---------------|-----------------------|---|-------------------------|----------------|----------|---|---|

Membership in Professional Associations and Publications:

| | | | |
|--------------------|--|---------------------------------|--|
| Institution | Engineers Registration Board (ERB) of Tanzania | Registration/Publication | Registered as Professional Engineer, ERB 1997. Registered Consulting Engineer by ERB - Tanzania 2002. |
| | | | Registered -Environmental Impact Assessment Expert (Tanzania - NEMC) |

NEMC

Engineers Registration Board (ERB) of Tanzania

Registration/Publication

Registered as Professional Engineer, ERB 1997.
Registered Consulting Engineer by ERB - Tanzania 2002.

Registered -Environmental Impact Assessment Expert (Tanzania - NEMC)

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| <p>Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned</p> <p>Detailed Tasks Assigned on Consultants' Team of Expert</p> | <ul style="list-style-type: none"> Liaison with Client in all administrative issues regarding to design and supervision of the Project including invoicing and accounting procedures for the project Administration of the project including planning, establishment of the management systems for the project and arrangements for communication, transportation and accommodation of staff when needed. Will also be responsible for quality check and submission of all project reports and delivers in compliance with the TOR, Responsible for the conduction of Design works for tanks and their associated facilities. |
| <p>Duration: October 2021 – to date</p> <p>Position held: Team Leader/Senior Structural Engineer</p> <p>Project Name: Consultancy Services for Architectural and Structural Design Services, Building Services and Supervision of Workshop Building to House the Proposed Metal Products Galvanization Plant for TATC/ Nymbu - Kibaha.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> Principal Contact Person between Employer and Consultant Team, responsible for coordinating and liaison with Client for all project matters at Site and at office. Responsible for Project Management and Contract Administration, Coordinating all design works for architectural, structural and building services. Worked hand in hand with Draftsman and other Engineers to ensure drawings of designed works are produced at required quality and standard Fully responsible for coordination and compilation of project reports, including Preliminary and Detailed Design Reports, Engineering drawings, Cost Estimates and Tender documents. Provided training to Counterpart Staff attached in the project in areas of structural Engineering, preparation of Tender Documents and report preparations. Coordinate Consultant Team during presentations held to Employer for all the work carried by Consultant Overall site supervision for the construction of Workshop Building Responsible for preparation of progress reports during the supervision of construction works. Responsible for preparation of final report and final account. | <p>Duration: September 2021 – to date</p> <p>Position held: Project Director/Senior Structural Engineer</p> <p>Project Name: Consultancy Services for supervision of Renovation and New Construction of Arab Republic of Egypt in Dar Es Salaam, Tanzania.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> Principal Contact Person between Employer and Consultant Team, responsible for coordinating and liaison with Client for all project matters at Site and at office. Responsible for Project Management and Contract Administration, Coordinating all design review works for architectural, structural, civil and building services. Worked hand in hand with Draftsman and other Engineers to ensure drawings of revised works are produced at required quality and standard Overall site supervision for the construction of Workshop Building Responsible for preparation of progress reports during the supervision of |

| Language Skills: | |
|------------------|-----------|
| Language | Swahili |
| Reading | Excellent |
| Speaking | Good |
| Writing | Excellent |

| | |
|---|---|
| Registered – Environmental Audit Expert (Tanzania – NEMC) | Senior Member Institution of Engineers Tanzania Member of Tanzania Roads Association (TARA), Member, Tanzania Institute of Arbitrator (TI Arb). |
| | Tanzania Roads Association Tanzania Institute of Engineers Tanzania Institute of Arbitrators |

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|---|---|--|--|---|
| <ul style="list-style-type: none"> • construction works. • Responsible for preparation of final report and final account. | <p>Duration: October 2020 – to date</p> <p>Position held: Team Leader/Senior Highway Engineer</p> <p>Project Name: Consultancy Services for Feasibility Study, Environmental & Social Impact Assessment, Detailed Engineering Design and Preparation of Tender Documents for Rehabilitation of Mwanza – Shinyanga / Mwanza Border Road (104 Km) to Bitumen Standard.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Principal Contact Person between Employer and Consultant Team, responsible for coordinating and liaison with Client for all project matters at Site and at office, • Responsible for overseeing project roads inventory and condition survey, and propose required interventions, • Worked with Transport Economist in carrying out Traffic studies including counting and carry out Analysis of Traffic Data, • Worked hand in hand with Draftsman and other Engineers to ensure drawings of designed roads are produced at required quality and standard • Fully responsible for coordination and compilation of project reports including Preliminary and Feasibility Study Reports, Detailed Design Reports, Materials report, Engineering drawings, ESIA Reports, Cost Estimates and Tender documents. • Provided training to Counterpart Staff attached in the project in areas of highway Engineering, Materials Engineering, preparation of Tender Documents and report preparations, • Coordinate Consultant Team during presentations held to Employer for all the work carried by Consultant. | <p>Duration: January 2020 – June 2020</p> <p>Position held: Team Leader</p> <p>Project Name: Consultancy Services for Design, Drawing and Cost Estimation of TFF Technical Centre in Kigamboni Municipality and Tanga Technical Centre in Tanga City.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Project Management and Contract Administration, • Liaison with stakeholders of the project. • Leading and coordinating the design team. • Coordinating all design works for architectural, structural and building services | <p>Duration: October 2019 – To Date</p> <p>Position held: Team Leader</p> <p>Project Name: Consultancy Services for Detailed Study, Engineering Design and Preparation of Tender Document for Development of New Water Sources and Expansion of Water Treatment Plant in Iringa Municipality.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Project Management and Contract Administration, • Liaison with stakeholders of the project. • Leading and coordinating the design team. • Coordinating all design works | <p>Duration: July 2018 – Oct 2020</p> <p>Position held: Team Leader/Senior Highway Engineer</p> <p>Project Name: Consultancy Services for Feasibility Study, ESIA, Detailed Engineering Design and preparation of Tender Documents for Upgrading of Miwo - Kamsamba (130km) and Chitete Spur Road (15km) Regional Roads (145km) to Bitumen Standard.</p> |
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| <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Principal Contact Person between Employer and Consultant Team, responsible for coordinating and liaison with Client for all project matters at Site and at office, • Responsible for overseeing project roads inventory and condition survey, and propose required interventions, • Worked with Transport Economist in carrying out Traffic studies including counting and carry out Analysis of Traffic Data, • Worked hand in hand with Draftsman and other Engineers to ensure drawings of designed roads are produced at required quality and standard • Fully responsible for coordination and compilation of project reports including Preliminary and Feasibility Study Reports, Detailed Design Reports, Materials report, Engineering drawings, ESIA Reports, Cost Estimates and Tender documents. • Provided training to Counterpart Staff attached in the project in areas of highway Engineering, Materials Engineering, preparation of Tender Documents and report preparations, • Coordinate Consultant Team during presentations held to Employer for all the work carried by Consultant | |
| <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Project Management and Contract Administration, • Coordinating all design review works for roads, structural and building services, • Overall site supervision for the construction of the Urban Infrastructure component <p>Duration: June 2018 – December 2019 Position held: Project Director Project Name: Consultancy Services for Construction Supervision for Urban Infrastructure Development in Ilemela Municipal Council under the Tanzania Strategic Cities Project (TSCP) Additional Financing 02 (AF-02). [Financed by World Bank]</p> | |
| <p>Main project features:</p> <ul style="list-style-type: none"> ! Construction Supervision of Sanitary Landfill at Buhongwa which includes Construction of Landfill Cell (130m x 300m) with their facilities. > Construction of Leachate and Contaminated Storm Water Pond. > Construction of Access and Perimeter Road (1.8km) to Gravel and Concrete standards. > Construction of office building, machinery and equipment parking lot. > Installation of four (4) overground plastic water tanks with their associated facilities i.e., submersible water pump. > Construction of four (4) boreholes and installation of hand and submersible water pumps. > Construction of blocks boundary wall (3.25km) > Grassing (55,284.60 sqm) and tree planting (2100 trees). > Installation of solar street lights <p>ii. Construction supervision of town roads (i.e., Mtakuja, Sukuma, Umoja, Macheмба, Bomba, Pamba, Balewa, Balewa, Macheмба – Isamilo, Mangochi and Lumumba Street roads) total of 7.6 km to bituminous standards including 1.6km road to concrete standards.</p> <p>Duration: June 2018 – December 2019 Position held: Project Director Project Name: Consultancy Services for Construction Supervision of Urban Infrastructure Development in Mwanza City under the Tanzania Strategic Cities Project (TSCP) Additional Financing 02 (AF-02). [Financed by World Bank]</p> | |

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| <p>!!!. Construction of 3Nos Reinforced Concrete Box culvert and storm water drains. iv. Installation of solar street</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Project Management and Contract Administration, • Coordinating all design review works for roads, structural and building services, • Overall site supervision for the construction of the Urban Infrastructure component | <p>Position held: Team Leader/Senior Highway Engineer</p> <p>Project Name: Consultancy Services for Carrying out Feasibility Study, ESIA, Detailed Engineering Design and Preparation of Tender Documents for Upgrading of Tabora - Bukene - Itobo and Nzege - Itobo - Kagongwa Roads (180,700km) to Bitumen Standard in Tabora and Shinyanga Region.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible to coordinate and liaison with Client for all project matters at Site and at office, • Responsible for overseeing project roads inventory and condition survey, and propose required interventions, • Worked with Transport Economist in carrying out Traffic studies including counting and carry out Analysis of Traffic Data, • Worked hand in hand with Draftsman and other Engineers to ensure drawings of designed roads are produced at required quality and standard • Fully responsible for coordination of preparation of project reports including Materials report, design reports, drawings and preparation of cost estimates and Tender documents. • Provided training to Counterpart Staff attached in the project in areas of highway Engineering, Materials Engineering, preparation of Tender Documents and report preparations | <p>Duration: September 2017 – 2020</p> |
| <p>Position held: Project Director</p> <p>Project Name: Supervision of Construction of Urban Infrastructures (4.0 km of Town and CBD Roads to Asphalt Standard) in Kibaha Town Council.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Liaison with Client on overall project matters, • Work hand in hand and assisting the Resident engineer in resolving all Contractual issues and managing the Project. • Provide Guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. | <p>Position held: Project Director</p> <p>Project Name: Supervision of Construction of Urban Infrastructures (Roads and Storm water drains) in Mwanza City Council.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Liaison with Client on overall project matters, • Work hand in hand and assisting the Resident engineer in resolving all Contractual issues and managing the Project. • Guidance of the Supervision team at site to ensure the consultancy services delivered is at required level. | <p>Duration: June 2016 – September 2017</p> |
| <p>Position held: Project Director</p> <p>Project Name: Consultancy Services for Construction supervision of Urban Infrastructure Components in Kinondoni Municipality under the Dar es Salaam Metropolitan Development Project (DMDP). [Financed by World Bank].</p> <p>Brief Description of Duties:</p> | <p>Position held: Project Director</p> <p>Project Name: Consultancy Services for Construction supervision of Urban Infrastructure Components in Kinondoni Municipality under the Dar es Salaam Metropolitan Development Project (DMDP). [Financed by World Bank].</p> <p>Brief Description of Duties:</p> | <p>Duration: June 2016 – To Date</p> |

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| <p>Duration: June 2014 – September 2020</p> <p>Position held: Project Director</p> <p>Project Name: Design and Supervision of Upgrading of Roads (3.0km) to Asphalt Concrete Standard, Construction of New Bus Stand and Construction of Modern Market in Korogwe Township.</p> <p>Duration: June 2014 – Date</p> <p>Position held: Project Director</p> <p>Project Name: Design and Supervision of Upgrading of Roads (3.0km) to Asphalt Concrete Standard, Construction of New Bus Stand and Construction of Modern Market in Korogwe Township.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Liaison with Client on overall project matters during Design Phase and during Construction Phase. • Directed the whole exercise of Designing the Infrastructures and preparation of Design reports, Cost Estimates and tender documents. • participated in procurement of Contractors for the Works • Assist the Resident engineer in resolving all Contractual issues and managing the Project. | |
| <p>Duration: July 2014 – Sept 2016</p> <p>Position held: Team Leader/Senior Highway Engineer</p> <p>Project Name: Consultancy services for Capacity Building to Gelta and Baradi Town Councils in Detailed Engineering Design, ESA, Cost Estimation and preparation of Drawings and Tender documents for ULGSP Sub-Projects including 18km and 20km of Roads in Gelta and Baradi Town Council respectively.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Lead Consultant team in design assignment and responsible for coordination and liaison with Client for all project matters, • Oversee Detailed Geometric Design which includes horizontal, vertical and cross sectional alignment design, • Oversee production of design drawings, • Responsible for compilation of project reports including inception report, design reports and Tender documents | |
| <p>Duration: Nov 2014 – 2018</p> <p>Position held: Team Leader/Senior Highway Engineer</p> <p>Project Name: Consultancy Services for Detailed Engineering Design, Environmental and Social Impact Assessment (ESIA), Preparation of Tender Documents and Construction supervision of One Stop Inspection Stations (OSIS) Facilities at Muhala Village in Manyoni District in Singida Region and at Nyakanazi Village in Biharamulo District, Kagera Region. [Financed by European Union]</p> <p>Main project features: Preparation of Detailed Design for a two-sided one stop inspection station (OSIS) facilities at Manyoni and carry out Supervision of designed facilities for OSIS. Facilities includes Static and WIM weigh Bridges, Offices for TRA, TANROADS, Police station, concrete access roads, concrete parking, electrical works for lighting and water investigation, exploration and supply works.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Project Management and Contract Administration, • Coordinating all design works for roads, weigh bridges, architectural, structural and building services • Overall site supervision for the construction of one stop inspection junction at Manyoni and Nyakanazi. | |
| <ul style="list-style-type: none"> • Responsible for Project Management and Contract Administration, • Coordinating all design works for roads, drainage works, architectural, structural and building services • Overall site supervision for the construction of the Urban Infrastructure component | |

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| <ul style="list-style-type: none"> • Provide guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. | <p>Duration: May 2014 – March 2015</p> <p>Position held: Team Leader</p> <p>Project Name: Feasibility Study, Environmental and social Impact Assessment, Preliminary and Detailed for Upgrading of Roads (15.32km) to Bitumen Standard, One Bus Terminal and Two Minibus Stand, in Singida Municipality.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Liaison with Client on overall project matters during Design Phase. • Directed the whole exercise of Designing the Infrastructures and preparation of Design reports, Cost Estimates and tender documents. | <p>Duration: June 2014 – September 2017</p> <p>Position held: Project Director</p> <p>Project Name: Supervision of Upgrading of Bwanga – Uyoovu road (45 km) to Bitumen Standard in Geita Region.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Liaison with Client overall project matters, • Assist in preparation and checking of all Project reports that are submitted to Client. • Assist the Resident engineer in resolving all Contractual issues and managing the Project. • Provide guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. | <p>Duration: June 2011 – July 2013</p> <p>Position held: Project Director</p> <p>Project Name: Design and Construction Supervision of Njedenywa Investment Area Infrastructures including Roads (22 km) to Bitumen Standard, Water supply system and Electrical Supply System in Dodoma Municipality.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Liaison with Client on overall project matters during Design Phase and during Construction Phase. • Directed the whole exercise of Designing the Infrastructures and preparation of Design reports, Cost Estimates and tender documents. • Participated in procurement of Contractors for the Works • Assist the Resident engineer in resolving all Contractual issues and managing the Project. • Provide guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. | <p>Duration: February 2009 - March 2010</p> <p>Position held: Senior Highway Engineer</p> <p>Project Name: Detailed Engineering Design and Preparation of Tender Documents for Construction of Kilombero Bridge and its approach Roads along Ifakara- Mahenge Trunk Road Section</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Design of the geometric aspects of the road • Work in hand with the Materials Engineer in carrying detailed engineering design of the pavement structure of the road • Carrying out geometrical design of the approach roads • Produce specifications and supervise production of working drawings • Prepare tender documents and cost estimates | <p>Duration: March 2008 - May 2011</p> <p>Position held: Senior Highway Engineer/Project Manager</p> <p>Project Name: Detailed Engineering design, preparation of Tender Documents and Construction Supervision of University of Dodoma Internal Road Network comprising of 40 km to bitumen standard.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Liaison with Client on overall project matters during Design Phase and during Construction Phase. • Directed the whole exercise of Designing the Infrastructures and preparation of Design reports, Cost Estimates and tender documents. |
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Name of Authorized Representative
 Representative of the Consultant
 (The same who signs the Proposal)

Signature

Date

ENG. EMMANUEL TASENI



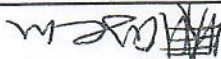
09.01.2022

Name of Expert

Signature

Date

ENG. EMMANUEL TASENI



09.01.2022

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Client.

Certification:

Email: tasenle@yahoo.com,

Phone: 0754 386756.

Expert's Contact Information:

| | | |
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| <p>Duration: 1993 - 1995</p> <p>Position held: Structural Engineer</p> <p>Project Name: Design and Supervise construction of various civil works projects.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> designing all structural projects awarded to the company, including design reviews, supervision of construction and other site Works, Preparation of reports and tender documents. | <p>Duration: March 2007 - May 2009</p> <p>Position held: Senior Highway Engineer/Project Manager</p> <p>Project Name: Supervision of Upgrading of Itakara Town Through road (7.0 km) to Bitumen Standard in Morogoro Region.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> Liaison with Client overall project matters, Assist in preparation and checking of all Project reports that are submitted to Client. Assist the Resident engineer in resolving all Contractual issues and managing the Project. Provide guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. | <ul style="list-style-type: none"> Participated in procurement of Contractors for the Works Assist the Resident engineer in resolving all Contractual issues and managing the Project. Provide guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. |
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**PHASE I : DETAILED ENGINEERING
DESIGN**

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This section of our Technical Proposal presents the Team Composition, Assignment of each Team member and Staffing Schedule for performing this Assignment. The specific assignments are given in Table 7 and 8 below. The estimated Professional Staff input required to carry the assignment has been presented in bar chart form. Furthermore the Staff months input indicates the time spent in head office and time spent for field activities have been shown.

FORM TECH-6.1: TEAM COMPOSITION, ASSIGNMENT AND KEY EXPERT INPUTS

Table 7 – Specific Assignment for Key Expert in Phase 1 of Assignment.

| Position | Specific Assignment |
|--------------------------------|---|
| Snr Structural Eng/Team Leader | He shall be responsible for the proper conduct of the entire Design exercise and shall be the principal contact person between the Consultant's team and the Client |
| Structural/Civil Engineer | He shall be responsible for carrying out Structural and foundation design of the Water tanks. Responsible for design of Civil Works associated with the water tanks. He will also conduct and supervise materials investigation works. |
| Water Engineer | He will work with the Structural Engineer in the whole design exercise and ensure the design is safe and that the designed tanks shall supply waters to intended network in a safe and portability manner. |
| Geotechnical Engineer | He shall be responsible for conducting the geotechnical investigation with a view to achieving optimal design and construction. He shall assist the Structural Engineer in carrying out design of foundation of Water tanks |
| Quantity Surveyor | He shall be responsible for preparation of Bills of Quantities and preparation of Cost Estimates of all designed works pertaining to construction of Water Tanks works. |
| Electrical Engineer | He shall be responsible for carrying out all Electrical Works design that are related to the water tanks and shall be responsible for testing and commissioning of constructed Electrical Works |
| Topographical Surveyor | He shall be responsible for planning of the fieldwork, select known survey reference points and conducting and supervising the survey works. He/she shall be responsible for searching for evidence of previous references survey points (geodetic reference points and national benchmarks) and shall mark all properties to be affected by the proposed project to facilitate valuation for compensation. |

Table 8 – Specific Assignment for Key Expert in Phase 2 of Assignment.

| Position | Specific Assignment |
|---|---|
| Project Director | He shall be responsible for the proper conduct of entire supervision exercise and shall be principal contact person between Consultant and the Client. He shall guide and support the site supervision staff for the duration of the project. He shall be based at the Consultant's head office and shall co-ordinate any specialist services that may be required from the Consultant. |
| Resident Engineers in Unguja and Pemba | They shall head Site Supervisory Experts and be responsible for supervision and administration of all technical and Contractual aspects of the Works at site. They shall be responsible for day today monitoring of progress of works, monitor quality of works, monitor project costs and controlling scope of works. |
| Inspectors of Works in Unguja and Pemba | They shall be assisting the Resident Engineers in day to day supervisory activities and will be stationed at site at all times. They shall be responsible for ensuring the quality of all materials to be incorporated in the works, as well as the completed works, conform to the contract specifications. |
| Environmental Expert | He shall be responsible for carrying out Environmental impact assessment of the project and monitor implementation of Environmental and Social Management Plan submitted by Contractors in order to minimize any negative impacts that the construction of the water tanks will have on the environment. |

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| Electrical Engineer | He shall be responsible for supervision of construction of all Electrical Works related to the water tanks and shall be responsible for testing during commissioning of constructed Electrical Works by Contractors |
| Topographical Surveyor | He shall be responsible for restoration of survey reference points, and responsible for follow-up of all survey activities carried by Contractors at Site. |
| Safety/Health/Social Officer | He shall be responsible for monitoring of implementation of Safety Management Plan submitted by Contractors in order to minimize any negative impacts that the construction of water tanks will have on Health and Safety issues at Sites |



3 FORM TECH-2: CONSULTANT'S ORGANIZATION AND EXPERIENCE

3.1 Consultant's Organisation

NIMETA Consult (T) Ltd. has been working extensively in the Civil Engineering field including road projects at feasibility study stage, base line study stage, and design stage to works supervision stage. The firms' experience is based on carrying out technical studies, assessments, designs and supervision of both construction and rehabilitation works.

(a) Eligibility

NIMETA Consult (T) Ltd. is a multidisciplinary local Consultancy firm, founded in Tanzania and legally incorporated under the Companies Ordinance (Cap 212) in 2001 and registered with Engineers Registration Board (ERB) in 2002 as Local Engineering Consulting Firm. NIMETA is also a member of the Association of Consulting Engineers (Tanzania) (ACET); the association is affiliated to FIDIC.

The firm is wholly owned by Tanzanian Professionals and is currently operating through its office located in Dar es Salaam city centre.

(b) Description of services offered by the Firm

The firm has a variety of experienced engineers with vying capabilities to offer services in the following areas of expertise:

- ✦ Civil Engineering,
- ✦ Project Management and Contract Administration,
- ✦ Structural and Bridge Engineering,
- ✦ Highway/Road Engineering,
- ✦ Pavement Evaluation and Monitoring,
- ✦ Water Resource and Environmental Engineering,
- ✦ Building Services,
- ✦ Soils and Construction Materials Engineering,
- ✦ Geotechnical and Foundation Engineering,
- ✦ Technical Audit of Engineering Projects
- ✦ Construction Contracts Dispute Resolution and Arbitration
- ✦ Provision of Services for Procurement of Works, Goods and Services
- ✦ Training

NIMETA Consult (T) Ltd has the ability to provide all services mentioned above through its experience and organization. Through its widely experienced and knowledgeable staff, NIMETA can commission and deliver projects to the satisfaction of its esteemed Clients. The company is also capable of carrying out special assignment in house or in association with sub-Consultants and specialists.

Emphasis is placed on providing a completely comprehensive and integrated Consultancy service. These services embrace most aspects of management of engineering projects for which the firm has, on its staff, civil, structural, and electrical and mechanical engineers, geologists and environmentalists. It is the firm's policy to seek the most economical and suitable technical solution for any task or assignment.

(c) Staffing

The key to successful project delivery and outcomes resides in the quality and competence of the personnel involved in undertaking the work, in combination with the organisational support that is provided.

NIMETA recognises the need to ensure the right person is available and nominated for the project work. At this stage, NIMETA employs highly skilled staff with far reaching professional competence, experience and integrity. The culture of NIMETA is that of team work problem solving leading to sustainable solutions and Client's satisfaction.

For this project NIMETA Consult (T) Ltd have nominated professional staff that have:

- ‡ qualifications relevant to the specific tasks required under this project
- ‡ competencies (skills, knowledge and expertise) to carry out project tasks
- ‡ substantial relevant recent experience, applicable to the objectives of this project.

Detailed CV's of these staff are presented under chapter 09 of this proposal. These show the depth of experience of the professional staff proposed for this assignment.

(d) Company Organization

NIMETA has an internal organisation in which there are principally three (3) departments, including Civil and Environmental Engineering Department, Finance and administration Department and Structural, Electrical, Mechanical and Services Engineering Department. Figure one below depicts the company organization chart describing internal organisation of the company.

The firm is wholly owned by Tanzanian Professionals and is also legally registered under the Companies Ordinance (Cap. 212) and currently operating through its office located in Dar es Salaam city center.

The board of directors is composed by the following personnel:

1. Eng. Emmanuel Taseeni - Managing Director
2. Eng. Heri Sanga - Director
3. Mr. Barita Taseeni - Director

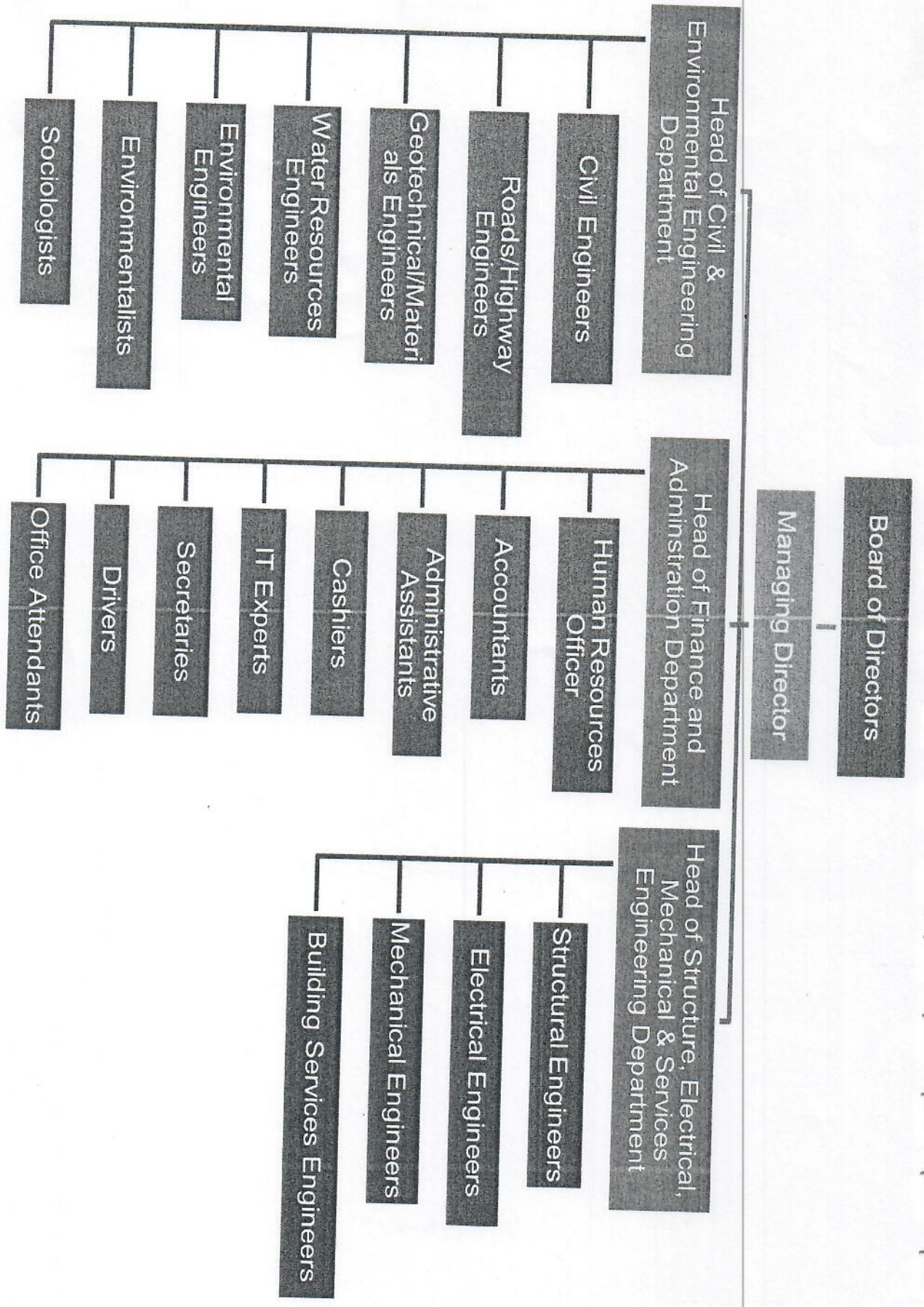


Figure 01: Company Organisation Chart

The proposed Staff organization chart is presented as figure 3 below;

5.4.2 Staffing

As explained earlier, the key to successful project delivery and outcomes resides in the quality and competence of the personnel involved in undertaking the work, in combination with the organisational support that is provided.

For this assignment, Consultant has proposed Key Personnel that have:

- qualifications relevant to the specific tasks required under this project;
- competencies (skills, knowledge and expertise) to carryout project tasks,
- substantial relevant recent experience, applicable to the objectives of this project.

Detailed CV's of Key Personnel are presented under chapter 09 of this proposal. These show the depth of experience of the Professional Personnel proposed for this assignment. The Professional Personnel proposed are also shown in table 5 and table 6 below for Detailed and Supervision respectively;

Table 5 – Phase I; Proposed Key Personnel for the Assignment

| Name | Position | Years of Experience |
|----------------------|--------------------------------|---------------------|
| Eng. Emmanuel Taseni | Snr Structural Eng/Team Leader | 28 |
| Eng. Patrick Marko | Structural/Civil Engineer | 16 |
| Eng. Henry Ngogolo | Water Engineer | 38 |
| Eng. Lwitiko Kalenga | Geotechnical Engineer | 16 |
| Dr. Geraldin Kikwasi | Quantity Surveyor | 25 |
| Eng. Raphael Ngeve | Electrical Engineer | 37 |
| Mr. Ambogo Ambogo | Topographical Surveyor | 33 |

Table 6 – Phase II; Proposed Key Personnel for the Assignment

| Name | Position | Years of Experience |
|-----------------------|------------------------------|---------------------|
| Eng. Emmanuel Taseni | Project Director | 28 |
| Eng. Heri Sanga | Resident Engineer Unguja | 19 |
| Eng. Patrick Marko | Resident Engineer Pemba | 16 |
| Eng. Adamu Lihawa | Inspector of Works Unguja | 7 |
| Eng. Innocent Mandago | Inspector of Works Pemba | 7 |
| Eng. Haruna Maulid | Environmental Expert | 13 |
| Eng. Raphael Ngeve | Electrical Engineer | 37 |
| Mr. Ambogo Ambogo | Topographical Surveyor | 33 |
| Mr. Huruma Kisaka | Safety/Health/Social Officer | 29 |

STAFF ORGANISATION CHART: DESIGN AND SUPERVISION OF CONSTRUCTION OF ON-GROUND AND ELEVATED WATER TANKS IN UNGUJA & PEMBA ISLANDS

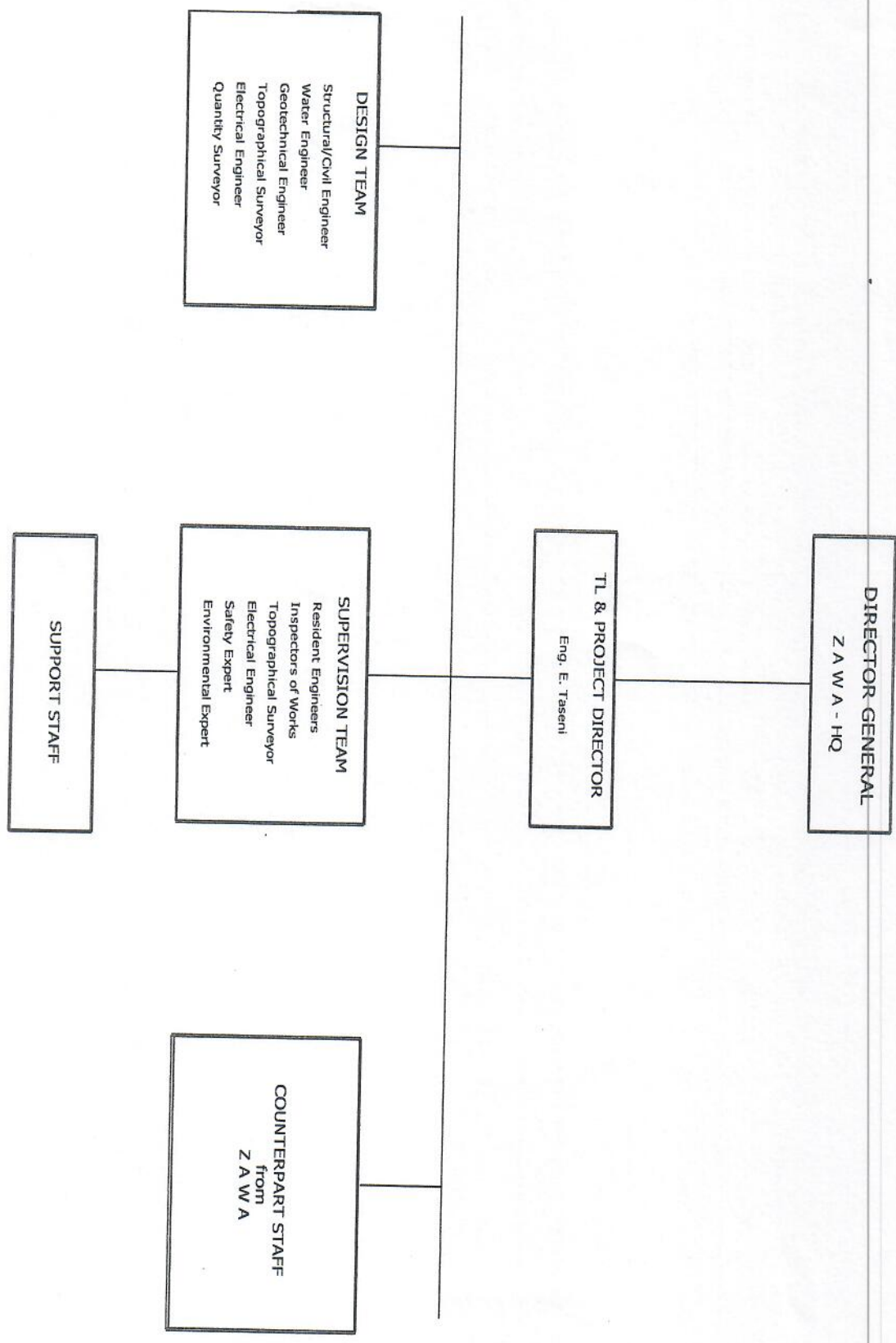


Figure 04: Staff Organisation Chart for the assignment.

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FORM TECH-5: WORK SCHEDULE AND PLANNING FOR DELIVERABLES

This section of our Technical Proposal presents the Work Schedule for performing this Assignment. The Schedule has been prepared in form of bar Chart as per Form Tech-5 of the TOR. All the main activities have been listed and the duration of performing has been demarcated by the bar charts.

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FORM TECH-6.2: CURRICULUM VITAE FOR PROPOSED PROFESSIONAL EXPERTS

This section of our Technical Proposal presents the Curricula Vitae of our proposed Professional Experts for performing this Assignment. The CV's have been prepared in the format suggested under Form Tech-5A8 of the TOR. The CV's presented are for the Staff and in order shown in Table below:

CV of Experts for Phase I: Design Phase

| Name | Position | Years of Experience |
|-----------------------|--------------------------------|---------------------|
| Eng. Emmanuel Taseini | Snr Structural Eng/Team Leader | 28 |
| Eng. Patrick Marko | Structural/Civil Engineer | 16 |
| Eng. Henry Ngogolo | Water Engineer | 38 |
| Eng. Lwitiko Kalenga | Geotechnical Engineer | 16 |
| Dr. Geraldin Kikwasi | Quantity Surveyor | 25 |
| Eng. Raphael Ngeve | Electrical Engineer | 37 |
| Mr. Ambogo Ambogo | Topographical Surveyor | 33 |

CV of Experts for Phase II: Supervision Phase

| Name | Position | Years of Experience |
|-----------------------|------------------------------|---------------------|
| Eng. Emmanuel Taseini | Project Director | 28 |
| Eng. Heri Sanga | Resident Engineer Unguja | 19 |
| Eng. Patrick Marko | Resident Engineer Pemba | 16 |
| Eng. Adamu Lihawa | Inspector of Works Unguja | 7 |
| Eng. Innocent Mandago | Inspector of Works Pemba | 7 |
| Eng. Haruna Maulid | Environmental Expert | 13 |
| Eng. Raphael Ngeve | Electrical Engineer | 37 |
| Mr. Ambogo Ambogo | Topographical Surveyor | 33 |
| Mr. Huruma Kissaka | Safety/Health/Social Officer | 29 |

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CURRICULUM VITAE

**FORM TECH-6
CURRICULUM VITAE**

| | |
|--|---|
| POSITION TITLE AND NO. | K-1, TEAM LEADER/SENIOR STRUCTURAL ENGINEER |
| NAME OF EXPERT: | ENG. EMMANUEL TASENI |
| DATE OF BIRTH: | 15 TH DECEMBER 1963 |
| COUNTRY OF CITIZENSHIP/RESIDENCE: | TANZANIAN/TANZANIA |

Education:

| | | | | | |
|---------------------------|------------------------------------|-----------------------|-------------|---------------------------------|----------------------------|
| College/University | University of Dar es Salaam (UDSM) | Dates Attended | 1999 - 2000 | Degree /Diploma attained | M. Sc. Highway Engineering |
| | University of Dar es Salaam (UDSM) | | 1990 - 1993 | | B. SC. Civil Engineering |

Employment record relevant to the assignment:

| | | | |
|---------------|--|----------------|--|
| Period | Employing Organization and title/position. Contact information for Reference | Country | Summary of Activities performed relevant to the assignment |
|---------------|--|----------------|--|

| | | | |
|--------------|--|----------|--|
| 2002 to date | Managing Director, NIMETA Consult (T) Ltd For Reference: Managing Director, P.O. Box 15651, Dar es Salaam Tel: +255-22-2183395 Fax: +255-22-2184191 | Tanzania | Design and supervise construction projects in the capacity of Team Leader, Senior Highway Engineer, Project manager, and Resident Engineer |
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| 2001 - 2004 | Principal Research Officer, Contractors Registration Board (CRB), Tanzania For Reference: Registrar, CRB P.O. Box 13374 Dar es Salaam Tel: +255-22-2131169 Fax: 255-22-2137964 | Tanzania | Review and update Registered Contractors companies for classification with respect to technical experience and resources and technical capabilities (plant/equipment and technical personnel) |
|-------------|---|----------|---|

| | | | |
|---------------------------|--|----------|--|
| July 1997 to January 1998 | Senior Civil Engineer, Kahama Mining Corporation | Tanzania | Carry out design and supervision of civil works including roads and structural works, Responsible in preparation of tender documents and costs estimates |
| July 1995 - June 1997 | Tutor/Research Engineer | Tanzania | Research activities on road/highway engineering materials |

Membership in Professional Associations and Publications:

| | | |
|--------------------|--|--|
| Institution | Engineers Registration Board (ERB) of Tanzania | Registration/Publication |
| | Registered as Professional Engineer, ERB 1997. | |
| | Registered Consulting Engineer by ERB - Tanzania 2002. | |
| | NEMC | Registered -Environmental Impact Assessment Expert (Tanzania - NEMC) |

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| Registered – Environmental Audit Expert (Tanzania – NEMC) | Senior Member Institution of Engineers Tanzania Member of Tanzania Roads Association (TARA), Member, Tanzania Institute of Arbitrator (TIArb). |
| | Institution of Engineers Tanzania Roads Association Tanzania Institute of Arbitrators |

Language Skills:

| | | | |
|----------|-----------|-----------|-----------|
| Language | Reading | Speaking | Writing |
| English | Excellent | Good | Good |
| Swahili | Excellent | Excellent | Excellent |

Detailed Tasks Assigned on Consultant's Team of Expert Assigned

Work Undertaken that Best Illustrates Capability to Handle the Tasks

- Liaison with Client in all administrative issues regarding to design and supervision of the Project including invoicing and accounting procedures for the project
- Administration of the project including planning, establishment of the management systems for the project and arrangements for communication, transportation and accommodation of staff when needed.
- Will also be responsible for quality check and submission of all project reports and deliverables in compliance with the TOR, for
- Responsible of Design works for tanks and their associated facilities.

Project Name: Consultant's Services for Architectural and Structural Design Services, Building Services and Supervision of Workshop Building to House the Proposed Metal Products Galvanization Plant for TATC/ Nymbu - Kibaha.

Position held: Team Leader/Senior Structural Engineer

Duration: October 2021 – to date

Brief Description of Duties:

- Principal Contact Person between Employer and Consultant Team, responsible for coordinating and liaison with Client for all project matters at Site and at office,
- Responsible for Project Management and Contract Administration, Coordinating all design works for architectural, structural and building services.
- Worked hand in hand with Draftsman and other Engineers to ensure drawings of designed works are produced at required quality and standard Fully responsible for coordination and compilation of project reports including Preliminary and Detailed Design Reports, Engineering drawings, Cost Estimates and Tender documents.
- Provided training to Counterpart Staff attached in the project in areas of structural Engineering, preparation of Tender Documents and report preparations,
- Coordinate Consultant Team during presentations held to Employer for all the work carried by Consultant
- Overall site supervision for the construction of Workshop Building
- Responsible for preparation of progress reports during the supervision of construction works.
- Responsible for preparation of final report and final account.

Project Name: Consultancy Services for supervision of Renovation and New Construction of Arab Republic of Egypt in Dar Es Salaam, Tanzania.

Position held: Project Director/Senior Structural Engineer

Duration: September 2021 – to date

Brief Description of Duties:

- Principal Contact Person between Employer and Consultant Team, responsible for coordinating and liaison with Client for all project matters at Site and at office,
- Responsible for Project Management and Contract Administration, Coordinating all design review works for architectural, structural, civil and building services.
- Worked hand in hand with Draftsman and other Engineers to ensure drawings of revised works are produced at required quality and standard
- Overall site supervision for the construction of Workshop Building
- Responsible for preparation of progress reports during the supervision of

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construction works.

- Responsible for preparation of final report and final account.

Duration: October 2020 – to date

Position held: Team Leader/Senior Highway Engineer

Project Name: Consultancy Services for Feasibility Study, Environmental & Social Impact Assessment, Detailed Engineering Design and Preparation of Tender Documents for Rehabilitation of Mwanza – Shinyanga / Mwanza Border Road (104 Km) to Bitumen Standard.

Brief Description of Duties:

- Principal Contact Person between Employer and Consultant Team, responsible for coordinating and liaison with Client for all project matters at Site and at office,
- Responsible for overseeing project roads inventory and condition survey, and propose required interventions,
- Worked with Transport Economist in carrying out Traffic studies including counting and carry out Analysis of Traffic Data,
- Worked hand in hand with Draftsman and other Engineers to ensure drawings of designed roads are produced at required quality and standard
- Fully responsible for coordination and compilation of project reports including Preliminary and Feasibility Study Reports, Detailed Design Reports, Materials report, Engineering drawings, ESIA Reports, Cost Estimates and Tender documents.
- Provided training to Counterpart Staff attached in the project in areas of highway Engineering, Materials Engineering, preparation of Tender Documents and report preparations,
- Coordinate Consultant Team during presentations held to Employer for all the work carried by Consultant.

Duration: January 2020 – June 2020

Position held: Team Leader

Project Name: Consultancy Services for Design, Drawing and Cost Estimation of TFF Technical Centre in Kigamboni Municipality and Tanga Technical Centre in Tanga City.

Brief Description of Duties:

- Responsible for Project Management and Contract Administration,
- Liaison with stakeholders of the project.
- Leading and coordinating the design team.
- Coordinating all design works for architectural, structural and building services

Duration: October 2019 – To Date

Position held: Team Leader

Project Name: Consultancy Services for Detailed Study, Engineering Design and Preparation of Tender Document for Development of New Water Sources and Expansion of Water Treatment Plant in Iringa Municipality.

Brief Description of Duties:

- Responsible for Project Management and Contract Administration,
- Liaison with stakeholders of the project.
- Leading and coordinating the design team.
- Coordinating all design works for architectural, structural and building services

Duration: July 2018 – Oct 2020

Position held: Team Leader/Senior Highway Engineer

Project Name: Consultancy Services for Feasibility Study, ESIA, Detailed Engineering Design and preparation of Tender Documents for Upgrading of Mlowo - Kamsamba (130km) and Chitete Spur Road (15km) Regional Roads (145km) to Bitumen Standard.

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| <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Principal Contact Person between Employer and Consultant Team, responsible for coordinating and liaison with Client for all project matters at Site and at office, • Responsible for overseeing project roads inventory and condition survey, and propose required interventions, • Worked with Transport Economist in carrying out Traffic studies including counting and carry out Analysis of Traffic Data, • Worked hand in hand with Draftsman and other Engineers to ensure drawings of designed roads are produced at required quality and standard • Fully responsible for coordination and compilation of project reports including Preliminary and Feasibility Study Reports, Detailed Design Reports, Materials report, Engineering drawings, ESIA Reports, Cost Estimates and Tender documents. • Provided training to Counterpart Staff attached in the project in areas of highway Engineering, Materials Engineering, preparation of Tender Documents and report preparations, • Coordinate Consultant Team during presentations held to Employer for all the work carried by Consultant <p>Duration: June 2018 – December 2019</p> <p>Position held: Project Director</p> <p>Project Name: Consultancy Services for Construction Supervision for Urban Infrastructure Development in Ilemela Municipal Council under the Tanzania Strategic Cities Project (TSCP) Additional Financing 02 (AF-02). [Financed by World Bank]</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Project Management and Contract Administration, • Coordinating all design review works for roads, structural and building services, • Overall site supervision for the construction of the Urban Infrastructure component <p>Duration: June 2018 – December 2019</p> <p>Position held: Project Director</p> <p>Project Name: Consultancy Services for Construction Supervision of Urban Infrastructure Development in Mwanza City under the Tanzania Strategic Cities Project (TSCP) Additional Financing 02 (AF-02). [Financed by World Bank]</p> <p>Main project features:</p> <p>i. Construction Supervision of Sanitary Landfill at Buhongwa which includes</p> <ul style="list-style-type: none"> • Construction of Landfill Cell (130m x 300m) with their facilities. • Construction of Leachate and Contaminated Storm Water Pond. • Construction of Access and Perimeter Road (1.8km) to Gravel and Concrete standards. • Construction of office building, machinery and equipment parking lot. • Installation of four (4) overground plastic water tanks with their associated facilities i.e., submersible water pump. • Construction of four (4) boreholes and installation of hand and submersible water pumps. • Construction of blocks boundary wall (3.25km) • Grassing (55,284.60 sqm) and tree planting (2100 trees). • Installation of solar street lights <p>ii. Construction supervision of town roads (i.e., Mtakuja, Sukuma, Umoja, Macheмба, Bomba, Pamba, Balewa, Macheмба – Isamilo, Mangochi and Lumumba Street roads) total of 7.6 km to bituminous standards including 1.6km road to concrete standards.</p> | |
| <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Principal Contact Person between Employer and Consultant Team, responsible for coordinating and liaison with Client for all project matters at Site and at office, • Responsible for overseeing project roads inventory and condition survey, and propose required interventions, • Worked with Transport Economist in carrying out Traffic studies including counting and carry out Analysis of Traffic Data, • Worked hand in hand with Draftsman and other Engineers to ensure drawings of designed roads are produced at required quality and standard • Fully responsible for coordination and compilation of project reports including Preliminary and Feasibility Study Reports, Detailed Design Reports, Materials report, Engineering drawings, ESIA Reports, Cost Estimates and Tender documents. • Provided training to Counterpart Staff attached in the project in areas of highway Engineering, Materials Engineering, preparation of Tender Documents and report preparations, • Coordinate Consultant Team during presentations held to Employer for all the work carried by Consultant <p>Duration: June 2018 – December 2019</p> <p>Position held: Project Director</p> <p>Project Name: Consultancy Services for Construction Supervision for Urban Infrastructure Development in Ilemela Municipal Council under the Tanzania Strategic Cities Project (TSCP) Additional Financing 02 (AF-02). [Financed by World Bank]</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Project Management and Contract Administration, • Coordinating all design review works for roads, structural and building services, • Overall site supervision for the construction of the Urban Infrastructure component <p>Duration: June 2018 – December 2019</p> <p>Position held: Project Director</p> <p>Project Name: Consultancy Services for Construction Supervision of Urban Infrastructure Development in Mwanza City under the Tanzania Strategic Cities Project (TSCP) Additional Financing 02 (AF-02). [Financed by World Bank]</p> <p>Main project features:</p> <p>i. Construction Supervision of Sanitary Landfill at Buhongwa which includes</p> <ul style="list-style-type: none"> • Construction of Landfill Cell (130m x 300m) with their facilities. • Construction of Leachate and Contaminated Storm Water Pond. • Construction of Access and Perimeter Road (1.8km) to Gravel and Concrete standards. • Construction of office building, machinery and equipment parking lot. • Installation of four (4) overground plastic water tanks with their associated facilities i.e., submersible water pump. • Construction of four (4) boreholes and installation of hand and submersible water pumps. • Construction of blocks boundary wall (3.25km) • Grassing (55,284.60 sqm) and tree planting (2100 trees). • Installation of solar street lights <p>ii. Construction supervision of town roads (i.e., Mtakuja, Sukuma, Umoja, Macheмба, Bomba, Pamba, Balewa, Macheмба – Isamilo, Mangochi and Lumumba Street roads) total of 7.6 km to bituminous standards including 1.6km road to concrete standards.</p> | |

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| <p>!!! Construction of 3Nos Reinforced Concrete Box culvert and storm water drains. iv. Installation of solar street</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Project Management and Contract Administration, • Coordinating all design review works for roads, structural and building services, • Overall site supervision for the construction of the Urban Infrastructure component | |
| <p>Duration: September 2017 – 2020</p> <p>Position held: Team Leader/Senior Highway Engineer</p> <p>Project Name: Consultancy Services for Carrying out Feasibility Study, ESIA, Detailed Engineering Design and Preparation of Tender Documents for Upgrading of Tabora – Bukene – Itobo and Nzege – Itobo – Kagongwa Roads (180.700km) to Bitumen Standard in Tabora and Shinyanga Region.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible to coordinate and liaison with Client for all project matters at Site and at office, • Responsible for overseeing project roads inventory and condition survey, and propose required interventions, • Worked with Transport Economist in carrying out Traffic studies including counting and carry out Analysis of Traffic Data, • Worked hand in hand with Draftsman and other Engineers to ensure drawings of designed roads are produced at required quality and standard • Fully responsible for coordination of preparation of project reports including Materials report, design reports, drawings and preparation of cost estimates and Tender documents. • Provided training to Counterpart Staff attached in the project in areas of highway Engineering, Materials Engineering, preparation of Tender Documents and report preparations | |
| <p>Duration: February 2017 – 2018</p> <p>Position held: Project Director</p> <p>Project Name: Supervision of Construction of Urban Infrastructures (4.0 km of Town and CBD Roads to Asphalt Standard) in Kibaha Town Council.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Liaison with Client on overall project matters, • Work hand in hand and assisting the Resident engineer in resolving all Contractual issues and managing the Project. • Provide Guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. | |
| <p>Duration: June 2016 – September 2017</p> <p>Position held: Project Director</p> <p>Project Name: Supervision of Construction of Urban infrastructures (Roads and Storm water drains) in Mwanza City Council.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Liaison with Client on overall project matters, • Work hand in hand and assisting the Resident engineer in resolving all Contractual issues and managing the Project. • Guidance of the Supervision team at site to ensure the consultancy services delivered is at required level. | |
| <p>Duration: June 2016 – To Date</p> <p>Position held: Project Director</p> <p>Consultancy Services for Construction supervision of Urban Infrastructure Components in Kinondoni Municipality under the Dar es Salaam Metropolitan Development Project (DMDP). [Financed by World Bank].</p> <p>Brief Description of Duties:</p> | |

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| <ul style="list-style-type: none"> • Responsible for Project Management and Contract Administration, structural and building services • Coordinating all design works for roads, drainage works, architectural, structural and building services • Overall site supervision for the construction of the Urban Infrastructure component | <p>Duration: Nov 2014 – 2018</p> <p>Position held: Team Leader/Senior Highway Engineer</p> <p>Project Name: Consultancy Services for Detailed Engineering Design, Environmental and Social Impact Assessment (ESIA), Preparation of Tender Documents and Construction supervision of One Stop Inspection Stations (OSIS) Facilities at Muhalala Village in Manyoni District in Singida Region and at Nyakanazi Village in Biharamulo District, Kagera Region. <i>[Financed by European Union]</i></p> <p>Main project features: Preparation of Detailed Design for a two-sided one stop inspection station (OSIS) facilities at Manyoni and at Nyakanazi and carry out Supervision of designed facilities for OSIS. Facilities includes Static and WIM weigh Bridges, Offices for TRA, TANROADS, Police station, concrete access roads, concrete parking, electrical works for lighting and water investigation, exploration and supply works.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Responsible for Project Management and Contract Administration, • Coordinating all design works for roads, weigh bridges, architectural, structural and building services • Overall site supervision for the construction of one stop inspection junction at Manyoni and Nyakanazi. | <p>Duration: July 2014 – Sept 2016</p> <p>Position held: Team Leader/Senior Highway Engineer</p> <p>Project Name: Consultancy services for Capacity Building to Geta and Baradi Town Councils in Detailed Engineering Design, ESIA, Cost Estimation and preparation of Drawings and Tender documents for ULGSP Sub-Projects including 18km and 20km of Roads in Geta and Baradi Town Council respectively.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Lead Consultant team in design assignment and responsible for coordination and liaison with Client for all project matters, • Oversee Detailed Geometric Design which includes horizontal, vertical and cross sectional alignment design, • Oversee production of design drawings, • Responsible for compilation of project reports including inception report, design reports and Tender documents | <p>Duration: June 2014 – September 2020</p> <p>Position held: Project Director</p> <p>Project Name: Design and Supervision of Upgrading of Roads (3.0km) to Asphalt Concrete Standard, Construction of New Bus Stand and Construction of Modern Market in Korogwe Township.</p> <p>Duration: June 2014 – Date</p> <p>Position held: Project Director</p> <p>Project Name: Design and Supervision of Upgrading of Roads (3.0km) to Asphalt Concrete Standard, Construction of New Bus Stand and Construction of Modern Market in Korogwe Township.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Liaison with Client on overall project matters during Design Phase and during Construction Phase. • Directed the whole exercise of Designing the Infrastructures and preparation of Design reports, Cost Estimates and tender documents. • participated in procurement of Contractors for the Works • Assist the Resident engineer in resolving all Contractual issues and managing the Project. |
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| <ul style="list-style-type: none"> • Provide guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. | |
| <p>Duration: May 2014 – Mach 2015</p> <p>Position held: Team Leader</p> <p>Project Name: Feasibility Study, Environmental and social Impact Assessment, Preliminary and Detailed for Upgrading of Roads (15.32km) to Bitumen Standard, One Bus Terminal and Two Minibus Stand, in Singida Municipality.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Liaison with Client on overall project matters during Design Phase. • Directed the whole exercise of Designing the Infrastructures and preparation of Design reports, Cost Estimates and tender documents. | |
| <p>Duration: June 2014 – September 2017</p> <p>Position held: Project Director</p> <p>Project Name: Supervision of Upgrading of Bwanga – Uyovu road (45 km) to Bitumen Standard in Gelta Region.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Liaison with Client overall project matters, • Assist in preparation and checking of all Project reports that are submitted to Client. • Assist the Resident engineer in resolving all Contractual issues and managing the Project. • Provide guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. | |
| <p>Duration: June 2011 – July 2013</p> <p>Position held: Project Director</p> <p>Project Name: Design and Construction Supervision of Njedenywa Investment Area Infrastructures including Roads (22 km) to Bitumen Standard, Water supply system and Electrical Supply System in Dodoma Municipality.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Liaison with Client on overall project matters during Design Phase and during Construction Phase. • Directed the whole exercise of Designing the Infrastructures and preparation of Design reports, Cost Estimates and tender documents. • Participated in procurement of Contractors for the Works • Assist the Resident engineer in resolving all Contractual issues and managing the Project. • Provide guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. | |
| <p>Duration: February 2009 - March 2010</p> <p>Position held: Senior Highway Engineer</p> <p>Project Name: Detailed Engineering Design and Preparation of Tender Documents for Construction of Kilombero Bridge and its approach Roads along Itakara-Mahenge Trunk Road Section</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Design of the geometric aspects of the road • Work in hand with the Materials Engineer in carrying detailed engineering design of the pavement structure of the road • Carrying out geometrical design of the approach roads • Produce specifications and supervise production of working drawings • Prepare tender documents and cost estimates | |
| <p>Duration: March 2008 - May 2011</p> <p>Position held: Senior Highway Engineer/Project Manager</p> <p>Project Name: Detailed Engineering design, preparation of Tender Documents and Construction Supervision of University of Dodoma Internal Road Network comprising of 40 km to bitumen standard.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> • Liaison with Client on overall project matters during Design Phase and during Construction Phase. • Directed the whole exercise of Designing the Infrastructures and preparation of Design reports, Cost Estimates and tender documents. | |

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Name of Authorized Representative
 Representative of the Consultant
 (The same who signs the Proposal)

Signature

Date

ENG. EMMANUEL TASENI

[Signature]

09.01.2022

Name of Expert

Signature

Date

ENG. EMMANUEL TASENI

[Signature]

09.01.2022

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Client.

Certification:

Email: tasenie@yahoo.com,

Phone: 0754 386756.

Experts' Contact Information:

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| <p>Participated in procurement of Contractors for the Works</p> <ul style="list-style-type: none"> Assist the Resident engineer in resolving all Contractual issues and managing the Project. Provide guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. | <p>Duration: March 2007 - May 2009</p> <p>Position held: Senior Highway Engineer/Project Manager</p> <p>Project Name: Supervision of Upgrading of Itakara Town Through road (7.0 km) to Bitumen Standard in Morogoro Region.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> Liaison with Client overall project matters, Assist in preparation and checking of all Project reports that are submitted to Client. Assist the Resident engineer in resolving all Contractual issues and managing the Project. Provide guidance to the Supervision team at site to ensure the consultancy services delivered is at required level. |
| <p>Preparation of reports and tender documents.</p> <ul style="list-style-type: none"> designing all structural projects awarded to the company, including design reviews, supervision of construction and other site Works, | <p>Duration: 1993 - 1995</p> <p>Position held: Structural Engineer</p> <p>Project Name: Design and Supervise construction of various civil works projects.</p> <p>Brief Description of Duties:</p> <ul style="list-style-type: none"> designing all structural projects awarded to the company, including design reviews, supervision of construction and other site Works, |

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**PHASE I : DETAILED ENGINEERING
DESIGN**

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7 FORM TECH-6.1: TEAM COMPOSITION, ASSIGNMENT AND KEY EXPERT INPUTS

This section of our Technical Proposal presents the Team Composition, Assignment of each Team member and Staffing Schedule for performing this Assignment. The specific assignments are given in Table 7 and 8 below. The estimated Professional Staff input required to carry the assignment has been presented in bar chart form. Furthermore the Staff months input indicates the time spent in head office and time spent for field activities have been shown.

Table 7 – Specific Assignment for Key Expert in Phase 1 of Assignment.

| Position | Specific Assignment |
|--------------------------------|---|
| Snr Structural Eng/Team Leader | He shall be responsible for the proper conduct of the entire Design exercise and shall be the principal contact person between the Consultant's team and the Client |
| Structural/Civil Engineer | He shall be responsible for carrying out Structural and foundation design of the Water tanks. Responsible for design of Civil Works associated with the water tanks. He will also conduct and supervise materials investigation works. |
| Water Engineer | He will work with the Structural Engineer in the whole design exercise and ensure the design is safe and that the designed tanks shall supply waters to intended network in a safe and portability manner. |
| Geotechnical Engineer | He shall be responsible for conducting the geotechnical investigation with a view to achieving optimal design and construction. He shall assist the Structural Engineer in carrying out design of foundation of Water tanks |
| Quantity Surveyor | He shall be responsible for preparation of Bills of Quantities and preparation of Cost Estimates of all designed works pertaining to construction of Water Tanks works. |
| Electrical Engineer | He shall be responsible for carrying out all Electrical Works design that are related to the water tanks and shall be responsible for testing and commissioning of constructed Electrical Works |
| Topographical Surveyor | He shall be responsible for planning of the fieldwork, select known survey reference points and conducting and supervising the survey works. He/she shall be responsible for searching for evidence of previous references survey points (geodetic reference points and national benchmarks) and shall mark all properties to be affected by the proposed project to facilitate valuation for compensation. |

Table 8 – Specific Assignment for Key Expert in Phase 2 of Assignment.

| Position | Specific Assignment |
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| Project Director | He shall be responsible for the proper conduct of entire supervision exercise and shall be principal contact person between Consultant and the Client. He shall guide and support the site supervision staff for the duration of the project. He shall be based at the Consultant's head office and shall co-ordinate any specialist services that may be required from the Consultant. |
| Resident Engineers in Unguja and Pemba | They shall head Site Supervisory Experts and be responsible for supervision and administration of all technical and Contractual aspects of the Works at site. They shall be responsible for day today monitoring of progress of works, monitor quality of works, monitor project costs and controlling scope of works. |
| Inspectors of Works in Unguja and Pemba | They shall be assisting the Resident Engineers in day to day supervisory activities and will be stationed at site at all times. They shall be responsible for ensuring the quality of all materials to be incorporated in the works, as well as the completed works, conform to the contract specifications. |
| Environmental Expert | He shall be responsible for carrying out Environmental impact assessment of the project and monitor implementation of Environmental and Social Management Plan submitted by Contractors in order to minimize any negative impacts that the construction of the water tanks will have on the environment. |

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| <p>He shall be responsible for supervision of construction of all Electrical Works related to the water tanks and shall be responsible for testing during commissioning of constructed Electrical Works by Contractors</p> | <p>Electrical Engineer</p> |
| <p>He shall be responsible for restoration of survey reference points, and responsible for follow-up of all survey activities carried by Contractors at Site.</p> | <p>Topographical Surveyor</p> |
| <p>He shall be responsible for monitoring of implementation of Safety Management Plan submitted by Contractors in order to minimize any negative impacts that the construction of water tanks will have on Health and Safety issues at Sites</p> | <p>Safety/Health/Social Officer</p> |

Technical Proposal

Consultancy Services for Design and Supervision of Construction of On-Ground and Elevated Water Tanks in Unguja and Pemba Islands

X

MAMLAKA YA MAJI ZANZIBAR ZAWA



KUMBUKUMBU YA KIKAO CHA MAJADILIANO (NEGOTIATION) BAINA YA ZAWA NA KAMPUNI YA NIMETA CONSULT (T) LTD KUHUSIANA NA UTOAJI WA USHAURI ELEKEZI WA USANIFU WA MATANGI 9 YA UNGUJA NA PEMBA KILICHOFAANYIKA UKUMBI WA MKUTANO ZAWA.

Tarhe: 26/01/2022 Pahala: Ukumbi wa mikutano ZAWA

Muda: 6:00 Mchana

A: Wajumbe Waliohudhuria.

| JINA | NAFASI YA KAZI | USHIRIKI WAKE |
|------------------|------------------------|---------------|
| A: Waliohudhuria | | |
| 1. | Khadija Makame Juma | Mjumbe |
| 2. | Mumwa Ameir | Mjumbe |
| 3. | Zubeir H. Zubeir | Katibu |
| 4. | Mohammed Khamis Haji | Mwenyekiti |
| 5. | Fatma Tahir Hussein | Mualikwa |
| 6. | Asma Rajab Mbarouk | Mualikwa |
| 7. | Masoud Ramadhan Ahmada | Mualikwa |

WAWAKILISHI

| JINA | KAMPUNI | USHIRIKI WAKE |
|------|------------------|---------------|
| 1. | Emmanuel Tasehi | Muwakilishi |
| 2. | Barita E. Tasehi | Muwakilishi |

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| Agenda | Maelezo |
| 1. | Ufunguzi wa kikao. • Mwenyekiti alifungua kikao saa 6:00 mchana. |
| 2. | Utambulisho kwa washiriki wa kikao. • Mwenyekiti aliruhusu washiriki kujitambulisha katika kikao hicho, mshiriki kutoka Kampuni ya "NIMETA CONSULT (T) Ltd alijitambulisha kwa jina la Emmanuel Taseeni na Barita E. Taseeni |
| 3. | Kuthibitisha agenda. • Wajumbe walizipitia agenda na kuthibitisha agenda hizo kama zilivyowasilishwa. |
| 4. | Maelezo kutoka kiongozi wa kampuni ya "NIMETA Consult (T) Ltd". |

C: MAELEZO YA AJENDA

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| NAMBA | AJENDA |
| 1. | Ufunguzi wa kikao. |
| 2. | Utambulisho kwa wajumbe na waalikwa. |
| 3. | Kuthibitisha agenda. |
| 4. | Maelezo kutoka kiongozi wa kampuni ya "NIMETA Consult (T) Ltd". |
| 5. | Muda wa kuanza kazi ya kuandaa mchoro Pamoja na BOQ. |
| 6. | Muda wa kuanza "Geotechnical". |
| 7. | Utaratibu wa malipo (Payment Schedule). |
| 8. | Menginyo. |
| 9. | Kufunga Kikao. |

B: AJENDA

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| <ul style="list-style-type: none"> • Muwakilishi kutoka "NIMETA Consult (T) Ltd". Kwanza alitowa shukrani zake kwa washiriki wa kikao na aliipongeza Mamalaka ya Maji – ZAWA kwa kuialika kampuni yake kwa ajili ya "Negotiation" kwa ajili ya kutoa huduma ya ushauri elekezi wa usantfu wa Matangi 9 kwa Unguja na Pemba. | <p>5</p> |
| <p>Muda wa kuanza kazi ya kuandaa mchoro Pamoja na BOQ.</p> <ul style="list-style-type: none"> • Muakilishi kutoka Kampuni ya Nimeta aliahidi kuleta Michoro Pamoja na BOQ ya Ujenzi wa Matangi tisa (9) siku ya Jumatano ya tarehe 02/02/2022 kwa ajili ya kuingizwa katika zabuni la Ujenzi la kumpata Mikandaraasi wa Kujenga 3ud awa hayo. • Muakilishi kutoka ZAWA alimuomba mshauri elekezi kupunguza siku za kuandaa michoro hiyo, kutokana na mradi huu kuwa ni waharaka. Hivyo kukubaliana na Mshauri Elekezi kupunguza siku hizo na kuahidi kuleta michoro hiyo siku ya Jumapili ya tarehe 30/01/2022. • Muakilishi kutoka Kampuni ya Nimeta alitaka kujuwa ni aina gani ya nyaraka za Ununuzi (Standard Bidding Documents) itakayotumika kwa ajili ya kuandaa document ya kumpata mkandaraasi wa ujenzi wa Matangi ni • Public procurement Regulatory Authority (PPRA) • Public Procurement of Disposal of Public Assets Authority (PPDPA) • World Bank (WB) • Muwakilishi kutoka ZAWA alifanua nyaraka zitakazotumika kwa ajili ya kumpata mkandaraasi ni nyaraka ya mamalaka ya Ununuzi na Uondaji wa Mali za Umma Zanzibar. (ZPPDPA) • Muakilishi kutoka Kampuni ya Nimeta alitaka kujuwa nia aina gani 3ud awa ya Ununuzi itakayotumika kumpata mkandaraasi wa ujenzi wa Matangi. | |

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| <p>10. Kufunga Kikao. Mwenyekiti alifunga kikao saa 7:30 za mchana.</p> | |
| <p>8. Menginyo. • Muwakilishi kutoka ZAWA: alimuomba Muakilishi kutoka Kampuni ya Nimeta wakati mikataba inasubiri kupata "APPROVAL" kwa Mwanashaha Mkuu wa Serikali kazi iendelee ili kuweza kuwahi muda wa kazi hiyo.</p> | |
| <p>7. Muda wa kuanza "Geotechnical". • Muakilishi kutoka Kampuni ya Nimeta aliahidi kufanya Investigation (Geo Technical) ili kujuwa maeneo yanayotarajiwa kujengwa Matangi na kujuwa hali halisi ya ardhi na kutoka sehemu moja kwenda nyengine. Hata hivyo kutafanyika "Environmental Impact Assessment" wa kazi hii ya mradi wa Covid. • Utaribu wa malipo (Payment Schedule). Matunzo/Kujenga Uwezo/ Gharama ya Uendeshaji wa Miradi • Muakilishi kutoka Kampuni ya Nimeta aliahidi kupunguza bei kutoka 650,650,000.00 hadi 600,000,000 ukijumlisha na VAT jumla ni shilingi 690,000,000.00/= ndiyo bei iliyokubaliana baina ya NIMETA na ZAWA • Bei ya Zabuni 650,650,000.00/= • Alichopunguza 50,650,000/= • Bei halisi Pamoja na VAT ni 690,000,000/= VAT Inclusive. • Aidha client amemuomba Consultant kwa nini Cost za Training hazijalingizwa katika kazi yake • Consultant alieleza ya kwamba mara nyingi bajeti ya Project Operational Cost na Matunzo inatolewa na Client kwa sababu ndie anayejuwa mahitaji ya miradi. Hivyo baada ya kufanya Negotiation Client na Consultant wamkubaliana TZS. 200,000,000/- zive ni gharama za kazi hiyo ya gharama za uendeshaji wa mradi, hivyo jumla ya bei ya mkataba iwe ni TZS. 890,000,000/=</p> | |
| <p>6. Muda wa kuanza "Geotechnical". • Muakilishi kutoka ZAWA: Matangi yanayotarajiwa kujengwa ni manne (4) ambayo ni Chanjaani, Pujini, Shumba Mjini, na Makangale na kwa upande wa Unguja ni Tumbatu, Bumbwini, Mgeni Haji, Unguja 4ud awa Bambi Uroa. • Muakilishi kutoka Kampuni ya Nimeta alitaka kufahamu kwa upande wa kisiwa cha Pemba ni Matangi mangapi yanatarajiwa kujengwa, • Muakilishi kutoka Kampuni ya Nimeta alitaka kufahamu kwa upande wa kisiwa Tendering. • Muda maalum njia sahihi itakayotumika ni Ristricted National Competitive Tendering. • Muwakilishi kutoka ZAWA: kutokana na Fedha za mkopo wa IMF FUND zina</p> | |

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Tarehe..... 26/01/2012

NIMETA Consult (T) Ltd
Muwakilishi

NDG: Emmanuel Tasehi

~~EMMANUEL TASEHI~~
[Signature]


ZIMETHIBITISHWA NA

NDG: Mohammed Khamis Haji
Mwenyekiti wa Kikao
Mamlaka ya Maji- ZAWA

[Signature]



| Pump Description | Our Offer Description | Qty | Final (Project Site) Destination as specified in BDS | Price per unit USD | Total USD | Delivery schedule (shipment) in days/ weeks/ months/ years/ appropriate) |
|--|---|-----|--|--------------------|-----------|--|
| 1 Submersible Bore Hole Pump With full SS EN 1.4401 AISI 316N, 7.5KW, 17m3/h @ 100 mtr , 6" , Outlet Rp 3". Submersible Motor 7.5KW With full SS EN 1.4401AIS1316N, 3X380-415V/50Hz, 2900RPM, 6" | GRUNDFOS SUBMERSIBLE PUMP (17 M3/HR @ 102 MTR) MODEL : SP 17-13 N 7.5 KW, 3X380/415 V, 2900 RPM, 50 HZ | 2 | ZAWA HEAD OFFICE - UNGUJA | 7564 | 15128 | |
| 1 Flat Drop Cable: 4core x 6mm2, length 100mtr, Kit andTies. | ROUND DROP CABLE 4 X6 MM2 - 100 MTR QTY 2 KIT & TIES | 2 | ZAWA HEAD OFFICE - UNGUJA | 891 | 1782 | |
| Control panel 7.5KW with MP204, water level pump sensor, pump running hour pump, and analog pump on the dashboard of the control panel with | DOL CONTROL PANEL WITH MP204 | 2 | ZAWA HEAD OFFICE - UNGUJA | | | |
| 2 Submersible Bore Hole Pump With full SS EN 1.4401AIS1316N, 22KW , 58m3/h @ 105 mtr , 6" Outlet Rp 3". Submersible Motor 22kW With full SS EN 1.4401AIS1316N, 3X380-415V/50Hz, 2900RPM, 6" | GRUNDFOS SUBMERSIBLE PUMP (58 M3/HR @ 90 MTR) MODEL : SP 60-11 N 22 KW, 3X380/415 V, 2900 RPM, 50 HZ | 4 | ZAWA HEAD OFFICE - UNGUJA | 12832 | 51328 | |
| 2 Flat Drop Cable: 4core x 16mm2, length 100mtr, Kitand Ties | ROUND DROP CABLE 4 X16 MM2 - 100 MTR QTY 4 KIT & TIES | 4 | ZAWA HEAD OFFICE - UNGUJA | 1945 | 7780 | |




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|---|--|----------|----------------------------------|--------------|--------------|---|
| <p>Control panel 22kW with soft starter and MP204, water level pump sensor, pump running hour pump, and analog pump on the dashboard of the control panel with PT100</p> | <p>DOL CONTROL PANEL WITH SOFT STARTER AND MP204</p> | <p>4</p> | <p>ZAWA HEAD OFFICE - UNGUJA</p> | <p>4109</p> | <p>16436</p> |  |
| <p>Submersible Bore Hole Pump With full SS EN 1.4401AISI316N, 15kW, 45m³/h @ 100mtr, 6" Outlet Rp 3".</p> | <p>GRUNDFOS SUBMERSIBLE PUMP (45 M³/HR @ 87 MTR) MODEL : SP 46-10 N 15 KW, 3X380/415 V, 2900 RPM, 50 HZ</p> | <p>3</p> | <p>ZAWA HEAD OFFICE - UNGUJA</p> | <p>11501</p> | <p>34503</p> | |
| <p>Submersible Motor 15KW With full SS EN 1.4401AISI316N, 3X380-415V/50Hz, 2900RPM, 6"</p> | | <p>3</p> | <p>ZAWA HEAD OFFICE - UNGUJA</p> | | | |



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|---|---|---|------|---------------------------|-------|-------|--|
| 4 | <p>Flat Drop Cable: 4core x 16mm2, length 100mtr, Kitand Ties</p> <p>Control panel 15KW with soft starter and MP204, water level pump sensor, pump running hour pump, and analog pump on the dashboard of the controlpanel with PI100</p> | <p>ROUND DROP CABLE 4 X16 MM2 - 100 MTR QTY 3 KIT & TIES</p> <p>DOL CONTROL PANEL WITH SOFT STARTER AND MP204</p> | 300m | ZAWA HEAD OFFICE - UNGUJA | 1945 | 5835 | |
| | <p>Submersible Bore Hole Pump With full SS EN 1.4401 AISI 316N, 18.5KW, 50m3/h @ 100mtr, 6" Outlet Rp 3"</p> <p>Submersible Motor 18.5KW With full SS EN 1.4401AISIS16N, 3X380-415V/50Hz, 2900RPM, 6" .</p> | <p>GRUNDFOS SUBMERSIBLE PUMP (50 M3/HR @ 93 MTR) MODEL : SP 46-12 N 18.5 KW, 3X380/415 V,2900 RPM,50 HZ</p> | 2 | ZAWA HEAD OFFICE - UNGUJA | 3491 | 10473 | |
| 5 | <p>Flat Drop Cable: 4core x 16mm2, length 100mtr, Kitand Ties</p> <p>Control panel 18.5KW with soft starter and MP204, water level pump sensor, pump running hour pump, and analog pump on the dashboard of the control panel with PI100</p> | <p>ROUND DROP CABLE 4 X16 MM2 - 100 MT QTY 2 KIT & TIES</p> <p>DOL CONTROL PANEL WITH SOFT STARTER AND MP204</p> | 200m | ZAWA HEAD OFFICE - UNGUJA | 1850 | 3700 | |
| | <p>Submersible Bore Hole Pump With full SS EN 1.4401 AISI 316N, 45KW , 90m3/h @ 100mtr, 6" Outlet Rp 3"</p> <p>Submersible Motor 45KW With full SS EN 1.4401AISIS16N, 3X380-415V/50Hz, 2900RPM, 6" .</p> | <p>GRUNDFOS SUBMERSIBLE PUMP (90 M3/HR @ 127 MTR) MODEL : SP 95-10 N 45 KW, 3X380/415 V,2900 RPM,50 HZ</p> | 2 | ZAWA HEAD OFFICE - UNGUJA | 6190 | 12380 | |
| | | | 2 | ZAWA HEAD OFFICE - UNGUJA | 26700 | 53400 | |

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|--|---|-----------------------|--|-------------------------|----------------------|---|
| Flat Drop Cable: 4core x 25mm2, length 100mtr, Kitand Ties Control panel 45KW with soft starter and MP204, water level pump sensor, pump running hour pump, and analog pump on the dashboard of the control panel with PT100; | ROUND DROP CABLE 4 X25 MM2 - 100 MTR KIT & TIES DOL CONTROL PANEL WITH SOFT STARTER AND MP204 TOTAL | 200m 2 | ZAWA HEAD OFFICE - UNGUJA ZAWA HEAD OFFICE - UNGUJA | 4824 7246.63 | 9648 14493.26 |  |
| TOTAL ITEMS | | 13 | | TOTAL AMOUN T USD | 160,418 | |
| NOTE : PUMP WITH MOTOR IS QUOTED PT 100 IS NOT INCLUDED IN OFFER FREIGHT AND PACKAGING WILL BE CHARGED SEPARATELY PRICE QUOTED IN USD Delivery : 14 Weeks from the date of firm order Price basis : Ex-Works, Dubai Payment terms : 50% advance balance prior to delivery Scope of work: Supply Price validity : 30 days | | | | | |  |

| | | | | | | | | |
|---|--|--|------|--------------------------|-------|-------|--|--|
| | Flat Drop Cable: 4core x 16mm ² , length 100mtr, Kitand Ties | ROUND DROP CABLE 4 X16 MM2 - 100 MTR QTY 4 KIT & TIES | 400m | ZAWA OFFICE UNGUJA+PEMBA | | | | |
| | Control panel 11KW with soft starter and MP204, water level pump sensor, pump running hour pump, and analog pump on the dashboard of the control panel with PT100 . | DOL CONTROL PANEL WITH SOFT STARTER AND MP204 | 4 | ZAWA OFFICE UNGUJA+PEMBA | 1945 | 7782 | | |
| | Submersible Bore Hole Pump With full SS EN 1.4401 AISI 316N, 30kW , 60m ³ /h @ 130mtr, 6" Outlet RP 3". | GRUNDFOS SUBMERSIBLE PUMP (60 M3/HR @130 MTR) MODEL : SP 60-17 N 30 KW, 3X380/415 V, 2900 RPM, 50 HZ | 8 | ZAWA OFFICE UNGUJA+PEMBA | 12000 | 96000 | | |
| 4 | Submersible Motor 30kW, With full SS EN 1.4401 AISI 316N, 3X380-415V/50Hz, 2900RPM, 6" . | | | | 0 | 0 | | |
| | Flat Drop Cable: 4core x 20mm ² , length 100mtr, Kitand Ties | ROUND DROP CABLE 4 X25 MM2 - 100 MTR QTY 8 Kit and Ties | 800m | ZAWA OFFICE UNGUJA+PEMBA | 2855 | 22836 | | |
| | Control panel 30kW with soft starter and MP204, water level pump sensor, pump running hour pump, and analog pump on the dashboard of the controlpanel with PT100 . | DOL CONTROL PANEL WITH SOFT STARTER AND MP204 | 8 | ZAWA OFFICE UNGUJA+PEMBA | 4582 | 36655 | | |

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|---|--|--|---|--------------------------|-------|-------|--|
| 5 | Submersible Bore Hole Pump With full SS EN 1.4401 AISI 316N, 37kW , 77m3/h @ 120mtr, 6" Outlet RP 3". | GRUNDFOS SUBMERSIBLE PUMP | 1 | ZAWA OFFICE UNGUJA+PEMBA | 21455 | 21455 | |
| | Submersible Motor 37kW, With full SS EN 1.4401 AISI 316N, 3X380-415V/50Hz, 2900RPM, 6" . | (77 M3/HR @125 MTR) MODEL : SP 77-11 N 37 KW, 3X380/415 V,2900 RPM,50 HZ | 1 | ZAWA OFFICE UNGUJA+PEMBA | | | |
| | Flat Drop Cable: 4core x 25mm2, legth 100mtr, Kitand Ties | ROUND DROP CABLE 4 X25 MM2 - 100 MTR QTY 1 KIT & TIES | 1 | ZAWA OFFICE UNGUJA+PEMBA | 2855 | 2855 | |
| | Control panel 37kW with soft starter and MP204, water level pump sensor, pump running hour pump, and analog pump on the dashboard of the control panel with PF100 . | DOL CONTROL PANEL WITH SOFT STARTER AND MP204 | 1 | ZAWA OFFICE UNGUJA+PEMBA | 5345 | 5345 | |

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|---|--|--|-----------|--------------------------|-------|----------------|--|
| 6 | Submersible Bore Hole Pump With full SS EN 1.4401 AISI 316N, 37kW, 80m3/h @ 150mtr, 6" Outlet Rp 3". | GRUNDFOS SUBMERSIBLE PUMP(80 M3/HR @153 MTR)/MODEL :SP 77-13N55 KW, 3X380/415 V,2900 RPM,50 HZ | 2 | ZAWA OFFICE UNGUJA+PEMBA | 24727 | 49455 | |
| | Submersible Motor 37kW, With full SS EN 1.4401 AISI 316N, 3X380-415V/50Hz, 2900RPM, 6". | | 2 | ZAWA OFFICE UNGUJA+PEMBA | 0 | 0 | |
| | Flat Drop Cable: 4core x 20mm2, length 100mtr, Kitand Ties | ROUND DROP CABLE 4 X35 MM2 - 100 MTR QTY 2 KIT & TIES | 200m | ZAWA OFFICE UNGUJA+PEMBA | 3945 | 7891 | |
| | Control panel 37kW with soft starter and MP204, water level pump sensor, pump running hour pump, and analog pump on the dashboard of the control panel with PT100. | DOL CONTROL PANEL WITH SOFT STARTER AND MP204 | 2 | ZAWA OFFICE UNGUJA+PEMBA | | | |
| | TOTAL ITEMS | | 38 | | | | |
| | | | | TOTAL AMOUNT USD | | 664,909 | |
| | NOTE :- - PUMP WITH MOTOR IS QUOTED -PT 100 IS NOT INCLUDED IN OFFER -FREIGHT AND PACKAGING WILL BE CHARGED SEPARATELY -PRICE QUOTED IN USD Delivery : 14 Weeks from the date of firm order Price basis : Ex-Works, Dubai Payment terms : 50% advance balance prior to delivery Scope of work: Supply Price validity : 30 days | | | | | | |