



Malawi Government



Blantyre Water Board

Malawi Water and Sanitation Project I

Terms of Reference:

Consultancy Services for Detailed Engineering Design and Construction supervision of Blantyre Water Board's New Head Office Building

Procurement Reference:

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1. **Introduction**

1.1 **Background**

The Government of Malawi (GoM) is committed to providing adequate, reliable and sustainable water and sanitation services to the urban, peri-urban, towns and rural population of Malawi to meet the ever-increasing demand for safe water for domestic, institutional, industrial, commercial and agricultural use. One focus area is Blantyre City, which currently faces a number of challenges related to water supply and sanitation services delivery. Some of the challenges include; high population growth, dwindling water resources, climate change, lagging infrastructure development and aging water and sanitation systems with high levels of non-revenue water creating large gaps between supply and demand, leading to unreliable services. The current water and sanitation situation in the city is alarming, which calls for comprehensive measures that will bring about sustainable and reliable improved services.

GoM through Blantyre Water Board (BWB) and Blantyre City Council (BCC) with financial support from the International Development Agency (IDA) of the World Bank intends to implement the Malawi Water and Sanitation Project-1 (MWSP-1). The MWSP-1 seeks to address the immediate and medium-term water and sanitation needs and support a long-term solution to Blantyre City's growing demand for improved water services and safely managed sanitation services.

BWB and BCC which are the implementing entities for the MWSP-1 commit themselves to successful implementation of the project which aligns with Malawi's development goals as well as strategic plans for the two institutions. The project is consistent with the Government's priorities, as it directly aligns with Malawi's commitment to improving urbanization as stipulated in the Malawi 2063.

1.1 ***Project Development Objective and Components for the Malawi Water and Sanitation Project (MWSP)***

The project development objective (PDO) is to increase access to improved water supply and sanitation services in Blantyre metropolitan area and to enhance the operational and financial efficiency of the Blantyre Water Board. The PDO will be achieved through development and rehabilitation of water and sanitation infrastructure for Blantyre City and surrounding areas so that the city has adequate and reliable potable water supply with adequate pressure and improved sanitation services. The project focuses on four components that contribute to the achievement of the PDO.

Component 1: Water supply improvements

Under this component, the project will finance investments to improve water production, stabilize and improve network operational efficiency, reduce water losses, increase energy efficiency, improve water supply service quality, and expand water access to unserved areas, increasing energy efficiency, and boosting water access.

Component 2: Priority sanitation investments

This component involves several interventions to increase access to improved sanitation services and reduce environmental pollution that has public health impacts.

Component 3: Institutional capacity strengthening

This component (object of this TOR), will finance a set of institutional development activities aimed at enhancing BWB's financial efficiency and governance systems, improving BCC's capacity to manage sanitation services and supporting the water sector investment planning and policy development to enhance the sustainability of urban water services.

Component 4: Technical Assistance and Project Management Support

This component will finance TA activities designed to support the project implementing unit and the incremental operating costs for project management, including safeguards, communications, and project monitoring and evaluation. The project will also finance relevant training to enhance financial management, procurement, and safeguards capacity for the implementing entities.

Component 5 – Contingency Emergency Response (CERC- US\$0).

This component will provide preparedness and rapid response measures to address disaster, emergency and/or catastrophic events in accordance with the applicable CERC Manual. Following an eligible crisis or emergency, the Borrower may request the Bank to re-allocate project funds to support emergency response and reconstruction. This component would draw from the uncommitted loan/credit/grant resources under the project from other project components to cover emergency response.

1.2 Current Status

The Board's Head Offices are situated at Mudi, off Makata Road, in Blantyre. The building structures are very old and potentially not safe and secure as a working environment. It is also becoming expensive to constantly rehabilitate and renovate the structures to meet the existing building standards to provide a safe, aesthetic and secure environment. In addition, the current layout of the offices does not economically provide enough space to accommodate the growth in both human and technical resources.

In order to meet the prevailing and modern building standards in line with the Malawi 2063 Agenda, the Board has therefore planned to construct a modern office building at Mudi to replace

the current office structure. The office building is expected to be a three-storey structure with a provision for scaling to five storeys in future.

These terms of references therefore provide a guide to the requirements of the works and the due process to be followed by prospective consultants to design and supervise the construction works.

2. Objectives

The main objective of the assignment is to prepare detailed Engineering, eco-architectural and environmentally sensitive designs; tender documents and construction supervision of modern Blantyre Water Board Head Office building. The planned office constructions shall adopt green solutions, including solar energy and smart office equipment, thus further reducing emissions, boosting climate resilience, and increasing environmental sustainability.

2.1 Specific objectives

- i. To assess the feasibility of constructing a modern office with a minimum of five-storeys in addition to the ground floor.
- ii. To provide a detailed design of a three-storey office building in line with relevant ISO and EDGE certified standards to promote sustainable construction;
- iii. To provide comprehensive costing of the project from pre-construction, construction and commissioning stages.
- iv. Carry out supervision and quality assurance for construction works

3. Scope of Works

The assignment is for 36 months and shall be undertaken in two phases: Phase 1-shall take 6 months under which the consultant shall be required to prepare and submit design plans that is compliant with the design parameters and performance specifications set by this TOR and tender documentation. Phase 2 shall take 30 months(including defects liability period) under which the consultant shall conduct construction supervision for the tendered works and also attend to any defects during the proving period of the project.

Phase 1 shall be undertaken on a lump sum contract with a duration of Six (6) months. The consultant shall take full responsibility of the designs and shall make any necessary reviews/changes required design during construction phase. The works will include;

- i. Conduct meetings with the Client to get a clear understanding of requirements and expectations,
- ii. Conduct reconnaissance visit to the proposed site at Mudi, Blantyre, establishing key features, existing services and other notable parameters,
- iii. Produce THREE conceptual design models of the desired office structure conforming to the latest national and international building standards. The models shall consider the accessibility to every apartment by persons with disabilities and associated visible marks. Focus shall also include the building's interior design for the facilities including the look, feel, colour palette, materials, and furniture style. Further, the models should

maximize energy efficiency and multifunctionality. Attention shall also be given to the areas that will receive visitors such as the reception, conference and meeting rooms. The conceptual designs are expected to include a 3-5 minute video clip showcasing the aesthetic look of both the surrounding and the external walls, the interior design and associated markings for easy access to offices and other rooms, the standard security features to be installed including access to rooms and CCTV, and the arrangement of all furnishings,

- iv. Technical studies encompassing including topographic surveys and geotechnical surveys;
- v. Carry out environmental and social impact assessment in accordance with National and World Bank guidelines;
- vi. Produce preliminary and detailed engineering design drawings and tender documentation for the offices;
- vii. Carry out comprehensive engineering, economic and financial feasibilities of the three conceptual models, present and discuss with BWB;
- viii. undertake a risk assessment looking at structures' deterioration and associated risks etc,
- ix. design permanent monitoring to allow problems to be identified immediately
- x. For the selected model, carry out detailed designs and prepare working drawings for the foundation, structural layout of columns, slabs, beams, doors, windows, roof, walls, floors, water supply, internal and external drainage system, sewer system, electrical system, renewable energy systems, evacuation plans, ICT and communication networking, audio/visual system room layouts, furniture and fixtures, flooring, false ceiling and false partitioning, security system, fire security system, stairs, elevators and ramps, access for people with special needs, internal and external lighting, water proofing, parking, landscaping, complex boundary walls and any other features as required by the Client
- xi. Obtain all the necessary approvals and certifications from relevant statutory authorities. All designs and documents shall fulfil all national authority requirements for physical planning and building regulations,
- xii. Prepare technical specifications considering cost efficiency and functionality, BoQs and project cost estimates based on market prices for such works, which shall include civil, electrical, mechanical, plumbing, heating, ventilation and air conditioning services, ICT equipment, acoustics, among others. The estimation of quantities shall be based on the analysis for computing the unit prices for the different items of works
- xiii. Develop Environmental and Social Management Plan (ESMP) for the development of the Blantyre Water Board Office building.

Phase 2 shall be subject to satisfactory performance of which the criteria shall include;

- i. quality of deliverables,
- ii. timely submission of deliverables,
- iii. compliance with contractual obligations including deployment of agreed staff and
- iv. responsiveness of the consultant.

This phase shall be undertaken on a time-based contract with a duration of 30 months which shall include 12 months defects liability period. Construction periods for the offices shall commence immediately after phase 1. Both phases will be procured together-i.e. the consultant is required to quote for both phases. Phase 2 of the contract shall come into effect after declaration of successful completion of phase 1 by the Client and upon client's notice to the consultant instructing commencement of phase 2 services.

4. Detailed Description of Tasks

4.1 Phase 1-Needs assessment, detailed designs and tender documentation for offices.

4.1.1 Preparation of detailed designs for the Head office

The consultant shall prepare detailed designs for construction of office. Specific activities shall include but not limited to:

- i. Prepare updated and technically sound architectural drawings of the building and cost estimates for the offices.
- ii. Prepare detailed designs (civil/structural, electro-mechanical, sanitary/plumbing and Local Area Network including construction drawings, technical specifications, bill of quantities, and engineer's cost estimates.
- iii. Prepare detailed construction plan and implementation program for the works
- iv. Advise on procurement packaging of the works and prepare bid documents in accordance with World Bank requirements
- v. Based on the client needs prepare a project proposal for consideration by the client. The building shall include but not limited to;
 - (a) promote greater integration, collaboration of functions and people
 - (b) offer healthy, safer and efficient work space for all to increase staff morale, productivity and efficiencies
 - (c) comply with international environmental and civil engineering standards and meet all local building regulations in force.
 - (d) offer features that will enable the user to use water and energy efficiently
 - (e) Ensure cost efficiency from the designed model and materials
- vi. Prepare standard civil and structural designs of climate resilient, gender and disability friendly

4.1.2 Tender Assistance

The consultant shall undertake the following under this task:

- (i) Draft bid documents including contract drawings, specifications, Bills of Quantities and conditions of contract shall be prepared, in accordance with the Bank's Standard Bidding documents. A set of these documents shall be prepared for each of the contract packages agreed upon.

- (ii) Prepare tender invitation notices and assist the Client with the invitation of bids, provide clarifications during the bid period, all in accordance with the Bank's procurement rules of procedures.

4.1.3 Assess possible environmental, Social and Gender Based Violence/Sexual Exploitation and Abuse/Sexual Harassment impacts of the proposed PSF and prepare relevant safeguards instruments

The Consultant shall assess possible environment and social impacts of the proposed offices as well as cumulative impacts over the entire project area. This will include an assessment of the potential for temporary labor influx, e.g. the arrival of outside workers (as part of the contractor workforce) in the project area, including the possible establishment of work camps. The Consultant shall then prepare relevant environmental and social management plans (ESMPs) and other social and safeguards instruments, including traffic management, Environment, Health, and Safety Guidelines and Codes of Conduct for contractor employees, and a subproject-level Grievance Redress Mechanism (GRM), to be included in the bidding documents and construction contracts.

4.1.4 Preparation of Perspective Views (Interior and Exterior)

- Develop three (3) perspective or conceptual views (exterior) of the new BWB Head Office Building for consideration of the Client.
- Subsequently, develop one (1) perspective view of certain interior spaces that will fit the selected exterior view with the following (as a minimum):
 - a. Board Room;
 - b. Conference Room;
 - c. Main Library;
 - d. Customer Service Workspace;
 - e. Executive Room for accommodating high-profile visitors.
- The selected plan as described in the subsequent sections shall be incorporated in the tender documents for the procurement of contractor to ensure that the winning bidder for the design and construction of the new BWB Head Office Building will not substantially deviate from the conceptual plan as envisioned by the Board.

4.1.5 Preparation of Design Parameters

- The Consultant shall recommend the appropriate code for design and construction of office building (i.e., Malawian or International Standard) while taking into consideration the cost and the requirements of Blantyre Water Board.
- The Consultant shall prepare the Design Parameters (based on recommended Codes/Standards) for the following:
 - a) Architectural;
 - b) Structural / Civil Works;

- c) Sanitary / Plumbing;
- d) Mechanical Works;
- e) Electrical; and
- f) Local Area Network (LAN).

The Design Parameters shall also take into consideration the following features of the new BWB Head Office Building as a minimum.

4.1.6 Workspace requirement for one hundred and forty (140) personnel as follows:

- Five (5) Executive rooms, one for the CEO, and four Directors. The room for the CEO shall be ensuite. Two toilets, male and female shall be for Directors.
- Fifteen (15) semi-executive rooms for Managers' offices based at Head Office.
- One Hundred and Twenty (120) Work stations (open spaces) for Officers based at Head Office.

4.1.7 The following are other workspace requirements apart from offices:

- Main Board Room good for forty (40) persons, with holding area (waiting room) good for fifteen (15) persons and kitchen room;
- Common Meeting or Training room good for one hundred (100) persons.
- Kitchen room
- Small meeting rooms on each floor.
- One (1) Private room for high-profile visitors, enough for 10 persons.
- Switchboard room.
- Vault;
- Gym
- Lactation Station;
- Toilets (Minimum of 6-rooms) for each floor;
- Reception;
- Visitors lounge on ground floor;
- Dining room with kitchen;
- Gym including health and wellness room.
- Archive room.
- Customer Service room;
- ICT/ Server room;
- Main Library;
- Change room;
- Genset room.

4.1.8 The new office building shall also have the following exterior amenities:

- Parking for a minimum of eighty (80) Board's vehicles;

- Parking for a minimum of 50 vehicles for employees and visitor's vehicle;
- Fire Assembly points;
- Decorative water fountains; and
- Access roads (only layout).
- Fence including guard houses.

The following are the standard building facilities that are required of the new BWB Head Office Building:

a. Electrical System and Lighting

Electrical lines from ESCOM meter to all the floor levels shall be installed. Ceiling and lighting layout (automated lighting system). An emergency power scheme shall be provided to operate the elevators (if applicable) and emergency lights during brownouts/ power supply interruption. Auxiliary layout: telephone, LAN (structure cabling and wifi) and DATA. Measures in optimizing energy performance shall be considered in the design.

b. Fire Protection System, including Stairways with Fire Escape, Fire Alarm and Water Sprinkler System

All floors including the basement levels shall be accessible by two (2) stairways with one serving as fire escape and shall be located at the rear side of the building. Fire and smoke alarms and water sprinklers shall be installed in all floors of the building. Provisions on fire safety measures and constructions, otherwise known as the Fire Building Code, shall be adhered to as applicable.

c. Telecommunication System including Telephone, Direct Cable and Wi-fi ready facilities

Communication lines for voice, data and security services shall be provided / distributed to all floors. This shall include current and future requirements for information services. A room for the information technology (IT) servers shall be provided per floor level.

d. Plumbing, drainage and water distribution system

Measures on water efficiency shall be considered, e.g. water efficiency in landscaping, storm water retention and management, etc. Water supply shall be drawn from the existing BWB main line and water pipes shall be connected from the source to all water fixtures located in all floors including the basements/parking areas.

An elevated water tank and an underground sump with pump/booster shall also be installed. This shall be regularly tested / treated to ensure that it is safe for drinking purposes. A system for sustainable collection and treatment of water and wastewater shall also be introduced. It is expected to have a sewage treatment plant installed or connected to existing sewer line.

e. Service Elevators

At least two (2) elevators with a capacity of fifteen (15) persons per unit shall be installed. The other elevators shall service all floors including the basement levels.

f. Security System

The building shall be installed with closed-circuit televisions (CCTVs) as part of its 24-Hour Security system. An Electronic Security Alarm System shall be installed at the perimeter fence. An Automatic Traffic Barrier shall be provided at the main entry.

g. Heating, ventilating and air-conditioning system (HVAC) shall follow available green/eco-efficient building design practices.

h. Landscape and landscape irrigation shall be provided.

i. Building requirements for persons with disabilities (PWDs) shall be provided.

4.2 Phase 2 – Construction Supervision and Verification

In close collaboration with BWB, the consultant shall supervise the works execution on a day-to-day basis in accordance with the signed works contracts. The consultant shall make sure, amongst others, that (i) the works are carried out in accordance with the Conditions of Contract for Construction; (ii) the quality of materials and workmanship conforms with the specification of the construction contract; and (iii) construction plant and personnel provided and used by the contractors are adequate to construct the works.

Specific tasks shall include, but not necessarily limited to the following:

4.2.1 Contract Administration

- i. Assist BWB in all aspects of contract administration and management of the construction works for the public facilities and the office building.
- ii. Prepare contract management manual which shall set out an organization chart, full contact details for each organization involved in the execution of the works, together with detailed procedures for the issuance of correspondences, information request, shop drawings, engineers instruction, variation orders management, contract sum adjustments, extension of time, standard monthly reporting by the contractor, minutes of monthly meetings, site inspection, standard forms to be used and project filing system;
- iii. Examining the contractor's detailed work program and guiding the contractors in preparation of a supervision schedule/work plan for each package;
- iv. Prepare detailed site reports, certified by the Site Engineer, during the continuation of the Contract. The reports shall include on site/off site activities, weather conditions, ground and traffic conditions, number of staff on site, records of visitors to the site, construction materials delivered, plants or equipment used or idling at site, daily works recording, quality inspections, encumbrances causing delays, photographic and video recording of important activities at site etc;
- v. Maintain daily site diaries, and daily reports to verify contractor's daily records of labour, plant and equipment, weather conditions, progress, instructions and delays;

- vi. Maintain a photographic record of the progress of the work;
- vii. Issue field instructions in writing as required and ensuring that the construction drawings are revised to suit actual site conditions encountered and to minimizing disruption to the progress of the works;
- viii. Organize and chair site meetings. As soon as practical after the meeting, prepare and distribute minutes for agreement and signing.
- ix. Report to the Client regularly on progress and advise the Client of any potential problem areas likely to affect progress and propose solutions to avert the problem.
- x. Evaluate and comment on the Contractor's Site personal experience and qualifications and recommend to Employer to justify approval or rejection by the Employer.
- xi. Preparation of Variation Orders and Extensions of times, estimation of the cost of the variations and extensions of times, negotiation of prices with the Contractor, and issuing of the Variation Orders and Extensions of times, after obtaining approval of the Employer as required by the Condition of Construction Contract.
- xii. Negotiate with the Contractor the prices of new works and new items revealed required during the construction period and not included in the original Tender, after obtaining approval of the Employer and as required by the Condition of Construction Contract.
- xiii. Issuing of written Orders to perform work, which will be paid from provisional Sums, after the Employer's written approval.
- xiv. Issuing Daywork Orders subject to the limitations on such orders contained in the Contract Documents.
- xv. Evaluation and documentation of claims, submitted by the Contractor.
- xvi. Services with regard to disputes in accordance with the General Conditions of the Construction Contract Documents including assisting the Employer in dealing with the settlement of all disputes and differences that may arise between the Employer and the Contractor.
- xvii. Prepare a snag list for the uncompleted works.
- xviii. Examine and recommend to the Employer the acceptance or the rejection of any part of the permanent Works.
- xix. Monitoring the Contractor's work in access roads, quarries, borrow areas and disposal areas and supervise their reinstatement.
- xx. Issuing the Taking-Over Certificate on satisfactory completion of all tests and take-over of the works by the Employer.
- xxi. Inspect the permanent Works during and on expiry of the defects liability period and inform the Contractor in writing about any repair, maintenance and/ or replacement required for the Works, and upon the Contractor's completion of the required repair, maintenance and/ or the replacement, proceed with the procedures of issuing the Defects Liability Certificate.
- xxii. Issuing the Defects Liability Certificate.

- xxiii. Approval of the removal of Contractor's Equipment, Temporary Works and Materials.

4.2.2 Quality assurance

- i. Establish a quality assurance system, including verification of source material, specifications and quality, and certification;
- ii. Carry out necessary quality control activities and certifying that the quality of works and materials conforms to the specifications;
- iii. Examine and approve the contractors' proposed changes to design (if any) and drawings for compliance with the specifications. Also, attend factory tests/pre-shipment inspection for major equipment as required;
- iv. Examining the construction methods proposed by the contractor including environmental, safety, personnel and public issues. The consultant must ensure that the construction methods as proposed by the contractor for carrying out the works comply with the World Bank's environmental and social safeguards policy and guidelines.
- v. Check survey points for the works and main setting out done by the contractor and ensuring that any errors found are promptly notified to the contractor and necessary remedial action is taken.
- vi. Undertake site supervision of construction, installation, testing and commissioning;
- vii. Undertaking resident supervision of the works by a qualified Resident Engineer in the respective discipline with sufficient experience who shall perform his duties with due diligence, efficiency and in accordance with the best engineering profession and consulting standards;
- viii. Direct locations or times for field testing in accordance with the specification and witness all such tests that will be performed by the Contractor in the laboratory to be established by the Contractor. Ensure all tests are conducted in accordance with the approved standards.
- ix. From time to time, if deemed necessary, carry out independent tests using the Consultant's personnel and the Contractor's laboratory and equipment;
- x. Check that testing equipment conforms to and is operated in accordance with relevant standard and that calibration certificates, where applicable, are current.

4.2.3 Schedule and Cost Management

- i. Monitor the progress of the contract and prepare monthly progress reports on both schedule and cost performance of the contracts using Earned Value Techniques or other tools as appropriate. Flag any issues to the BWB and or BCC in a timely manner, and recommend actions to be taken;
- ii. Assess and incorporate confidential delay contingencies, should delays become unavoidable and advise the client regarding the target practical completion dates for the Project components;

- iii. Undertake cost management for BWB. The Consultant shall follow several bases in monitoring the cost such as details of breakdown of work items as in the Contract, variation and escalation contingencies within the budget, status of sub-packages, anticipated variations, running forecast cost at completion for each item;
- iv. Monitor the Contract costs relative to the Contract budget and programmed expenditure considering actual quantities and update quantity estimates, costs of variation orders, costs of potential claims and any other costs.
- v. Review and effect any design changes during construction.
- vi. Prepare actual and forecast monthly/yearly cash flows to assist client's cash flow management for the works;
- vii. Check contractor's invoice and issue progress payment certificates;
- viii. Check and make recommendation for any variation orders if required;
- ix. Check and recommend any extension of time required to be given to the contractor;
- x. Recommend substantial completion certificate to the contractor for the contract;
- xi. Recommend final acceptance certificate for the contractor after expiration of defect liability period;

4.2.4 As-Built Drawings and O&M Manuals

- i. Ensure that the contractors maintain at the site a complete set of 'as-built' drawings for the contract as the work proceeds;
- ii. On completion of the construction of the office structure, the consultant shall assist BWB to transfer all records changes in the Database.
- iii. Ensure the contractors provides all manufacturers operation manuals, instructions and technical details for the installations.

4.2.5 Environmental and Social Monitoring

The Consultant shall ensure that the Contractor's ES performance is in accordance with World Bank standards and guidelines and delivers the Contractor's ES obligations. The ES related services shall include but not limited to:

- (i) Supervise environmental and social matters in accordance with the stipulation of the Environmental and Social safeguards instruments. Any additional and unexpected environmental and social incidences should be noted and necessary adjustments recommended and amended accordingly;
- (ii) Review and approve the Contractor's Environment and Social Management Plan (C-ESMP), including all updates and revisions (not less than once every 6 months);
- (iii) Ensure implementation of measures proposed in the Environmental and Social Management Plans (ESMPs) and Environmental, Social, Occupational Health and Safety (ESOHS) requirements including:

- a) Ensure that the contractor has an adequate Contractor Environmental Social Management Plan (C-ESMP), that its schedule, budget and work plan integrates ESOHS requirements and review and approve the Contractor's Environment and Social Management Plan (C-ESMP), including all updates and revisions.
- b) Monitor and supervise the implementation of the Contractor Environmental Social Management Plan (C-ESMP) to ensure that the Contractor is implementing the mitigation measures, attaining the monitoring indicators established in the site ESMP and to verify the Contractor's compliance with ESOHS requirements including its GBV/SEA/SH obligations, with and without contractor and/or client relevant representatives, as necessary, but not less than once per month.
- c) Undertake audits and inspections of Contractor's accident logs, grievance logs, monitoring findings and other ESOHS related documentation, as necessary, to confirm the Contractor's compliance with ESOHS requirements.
- d) Undertake audits, supervisions and/or inspections of any sites where the Contractor is undertaking activities related to the Works, to verify the Contractor's compliance with ESOHS requirements including its GBV/SEA obligations, with and without contractor and/or client relevant representatives, as necessary, but not less than once per month
- e) Ensure that the contractor complies with all national labour, Environment, Social, Occupational Health and Safety rules and requirements of the contract documents as per the local legal and regulatory requirements, and project requirements;
- f) Ensure that all contractor's staff are properly equipped with personal protective equipment;
- g) Ensure that the contractor carries sufficient training of their personnel to ensure a safe working environment;
- h) Monitor the contractor's implementation of their traffic management plan to ensure safety of road users including pedestrians and non-motorized traffic during the works
- a) Provide immediate notification to the Client should any incident in the following categories occur while carrying out the Services. Full details of such incidents shall be provided to the Client within the stipulated timeframe in the ESOHS:
 - I. confirmed or likely violation of any law or international agreement;
 - II. any fatality or serious (lost time) injury;
 - III. significant adverse effects or damage to private property (e.g. vehicle accident); or

- IV. any allegation of gender-based violence (GBV), sexual exploitation or abuse (SEA), sexual harassment or sexual misbehavior, rape, sexual assault, child abuse or defilement, or other violations involving children,
- b) Ensure that contractor immediate notifications on ESOHS aspects are shared with the Client immediately;
- c) Immediately inform and share with the Client any notification related to **ESOHS** incidents and undertaking root cause analysis provided to the Consultant by the Contractor, and as required of the Contractor as part of the Progress Reporting;
- d) Share with the Client in a timely manner the Contractor's ESOHS metrics, as required of the Contractor as part of the Progress Reports.
- e) Review and input, in a timely manner, the Contractor's ESOHS documentation (including regular reports and incident reports).
- f) Verify that the contractor establishes and maintains a grievance redress mechanism including types of grievances to be recorded and how to protect confidentiality e.g. of those reporting allegations of GBV/SEA/SH ensuring any GBV/SEA/SH instances and complaints that come to the attention of the consultant are registered in the grievance mechanism.
- g) Confirm compliance and remedial action/s and their timeframe for implementation in the event of a noncompliance with the Contractor's ESOHS obligations and ensure that any pending ESOHS non-compliances have been addressed and closed by the contractor.
- h) Ensure appropriate representation at relevant meetings including site meetings, and progress meetings to discuss and agree appropriate actions to ensure compliance with ESOHS obligations.
- i) Ensure that contractor activities are aligned with the Stakeholder Engagement Plan (SEP) and Labour Management Procedures (LMP):
- (iv) Review and approve ES provisions of method statements, implementation plans, Gender-Based Violence/Sexual Exploitation and Abuse (GBV/SEA) prevention and response action plan, drawings, proposals, schedules and all relevant Contractor's documents;
- (v) Review and consider the ES risks and impacts of any design change proposals and advise if there are implications for compliance with ESIA, ESMP, consent/permits and other relevant project requirements;
- (vi) Undertake audits, supervisions and/or inspections of any sites where the Contractor is undertaking activities related to the Works, to verify the Contractor's compliance with ES requirements including its GBV/SEA obligations, with and without contractor and/or client relevant representatives, as necessary, but not less than once per month;
- (vii) Ensure operationalization of Grievance mechanism

- (viii) Undertake audits and inspections of Contractor's accident logs, community liaison records, monitoring findings and other ES related documentation, as necessary, to confirm the Contractor's compliance with ES requirements;
- (ix) Agree remedial action/s and their timeframe for implementation in the event of a noncompliance with the Contractor's ES obligations;
- (x) Ensure appropriate representation at relevant meetings including site meetings, and progress meetings to discuss and agree appropriate actions to ensure compliance with ES obligations;
- (xi) Check that the Contractor's actual reporting (content and timeliness) is in accordance with the Contractor's contractual obligations;
- (xii) Ensure that all environmental and pollution control measures are implemented in accordance with the contract and are maintained for the duration of the works;
- (xiii) Review and critique, in a timely manner, the Contractor's ES documentation (including regular reports and incident reports) regarding the accuracy and efficacy of the documentation;
- (xiv) Undertake liaison, from time to time and as necessary, with project stakeholders to identify and discuss any actual or potential ES issues;
- (xv) Supervise the Contractor's contractual obligation on HIV/AIDS, COVID-19 and Cholera prevention, as well as safety and health. Check that works are being carried out in a safe manner and report all breaches of safety requirement. Monitor the corrective action taken to ensure unsafe practice does not continue;
- (xvi) ESS capacity assessment and building for contractor

4.2.6 Progress Reporting

The consultant shall prepare several reports to document progress of the works. These include, but not limited to the following:

- i. Comprehensive monthly report to BWB and or BCC which shall among others include the current expected completion date, the current forecast and cost, achievements during the month, status against program, personnel deployed by both the Contractor and the Consultant, equipment on site and status, progress on procurement of key materials and equipment forming part of the works, provision of other required services including power supply connection, current expenditures against expected cash flow, an analysis of any cost changes or variations, report on any significant problem areas and the action being undertaken to resolve them. The reports shall include a summary program showing the status, together with the trend graphs of key activities and a photographic and video record of work on site. The reports shall incorporate individual reports prepared by others as required;
- ii. Comprehensive annual report covering the same subjects as the monthly reports, but in a comprehensive format related to technical and financial matters including consultant's work plan for the next twelve months;

- iii. Prepare a comprehensive final Project Completion Report (PCR) at the end of the assignment. This report must be submitted immediately after completion of contracts and shall summarize the methods of construction, construction supervision performed and recommendations for future projects of similar nature to be under taken by the Employer. The report should also contain summary of all reports in terms of project implementation, targets versus achievements, lessons and experience gained in project implementation, problems encountered and resolved;
- iv. Other reports as required (such as ES reports, technical reports etc.)

5. Deliverables and Timeframe

The total duration of the detailed design, tender assistance and construction supervision for the Head Office assignment is estimated at 36 months split into two phases. Phase 1 is estimated to take 6 months while Phase 2 is estimated to take 18 months for construction supervision and 12 defects liability period. Table 2 provides a summary of the expected deliverables and timeframe. For each deliverable, the consultant shall prepare and submit to the Client one [1] electronic copy, preferably in MS Word, on CD Rom/ Pen-drive and five (5) hard copies of the reports.

Table 1: Deliverables for Phase 1 and 2 for detailed design, tender assistance and construction supervision for Blantyre Water Board Head offices

No.	Report	No of Copies	Due date (No. Of months from commencement date)
Phase 1: detailed designs and tender documentation (6 Months)			
1	Inception report	5	0.5 months after commencement of phase
2	Feasibility Study Report for office structure	5	2 months
3	Draft Detailed Design Report and Tender Documents for office structure	5	5 months
4	Final Detailed Design Report and Tender Documents for office structure	5	6 months
5	Environmental and Social Management Plans (ESMPs)	5	6 months
Phase 2a – Construction Supervision and Verification (18 Months)			
10	Supervision and contract management manual	5	2 weeks after commencement of phase 2
11	Monthly Supervision Reports	5	Every 5 th day of the following month

12	Memorandums with proposed actions to be undertaken to address any issues arising during the implementation of the contract	5	As required
13	Certificates on quality of works	5	As required
14	Cash flow projections versus actual disbursements	5	As required
15	Memorandums on the contractor's Interim Certificates payments and claims	5	As required
16	ESHS Reports	5	Every 5 th day of the following month
17	Operation and Maintenance Manuals	5	1 month after final acceptance
18	As-Built Drawings	5	1 month before practical completion
19	Final construction report	5	3 months after practical completion
Phase 2b - Defects Liability Period (12 Months)			
20	Quarterly Inspection Reports	5	Every 4 th Month after commencement of phase 3
21	Project Completion Report	5	3 months before the end of the Defects Liability Period

6. Format of Reports and Deliverables

6.1. Inception Report

The Consultant shall prepare an Inception Report one [1] month after commencement date. This report shall be prepared and submitted in five [5] hard and one [1] electronic copies to the Employer and shall include at least the following:

- i. The Engineer's state of mobilization
- ii. Any changes to the composition of the Engineer's team
- iii. Proposed methodology for carrying out the services, including quality, cost control, and ensuring compliance with environmental, H&S, PHPSA Plan and other requirements
- iv. Proposed site communication procedures and recordkeeping
- v. Detailed program of works, showing time, duration and personnel, as well as inter-relationship between activities
- vi. Risk register that will be updated in the subsequent monthly progress report. The register should highlight what is required for the attention of the client and may affect the successful delivery of the assignment
- vii. Format of Monthly Progress Reports

- viii. Understanding of the ToR and scope of work, any proposals to improve the TORs, indication of adequacy or inadequacy of the ToR
- ix. Outputs implementation, costs and performance of the system,
 - xi. Preliminary findings from initial assessments (desk or documentation review and field)

5.16.2. Monthly Progress Reports

The Monthly Progress Reports to the Client during construction phase should include:

- i. Brief description of the Works;
- ii. Description of activities completed and in progress;
- iii. Progress compared with construction programme and estimated completion date including approved extension;
- iv. Financial report with payments to date compared to programme disbursements;
- v. Schedule and cost performance
- vi. Quality control;
- vii. Contractor’s personnel and constructional plant;
- viii. Consultant personnel;
- ix. Weather conditions;
- x. Safety matters;
- xi. Labour matters;
- xii. Environmental and pollution control;
- xiii. challenges, issues, risks, updated risk register, and level of effort expected from the consultant's team in the following month; and
- xiv. Photographic records.
- xv. Plant and equipment deployment
- xvi. progress on procurement,
- xvii. planned work or activities in the next reporting period

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5.26.3. Environmental and Social (ES) Reports

The Consultant shall provide immediate notification to the Client should any incident in the following categories occur while carrying out the Services. Full details of such incidents shall be provided to the Client within the timeframe agreed with the Client. Such reports may include:

- a. Immediately notify the Client of any allegation, incident or accident, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, 'Client's Personnel, 'Contractor's Personnel or Experts. In case of SEA/SH-GBV, while maintaining confidentiality as appropriate, the type of allegation (sexual exploitation, sexual abuse or sexual harassment), gender and age of the person who experienced the alleged incident should be included in the information. The Consultant shall provide full details of such incidents or accidents to the Client within the timeframe agreed with the Client.

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a. Immediately inform and share with the Client notifications on ES incidents or accidents provided to the Consultant by the Contractor, and as required of the Contractor as part of the Progress Reporting.

b.

c. Share with the Client in a timely manner the 'Contractor's ES metrics, as required of the Contractor as part of the Progress Reports'."

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5.36.4. Contract Management Manual

The Consultant shall prepare a Contract Management Manual which will lay out procedures to be followed during the execution of the works. The manual shall be set out an organization chart, full contact details for each organization involved in the execution of the works, together with detailed procedures for the issuance of correspondences, information request, shop drawings, engineer's instruction, variation orders management, contract sum adjustments, extension of time, standard monthly reporting by the contractor, minutes of monthly meeting, site inspection, standard forms to be used and project filing system. The Manual will also serve as a basis for on-the-job training of the Employer's Representative staff during the implementation of the works contract.

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5.46.5. O&M manuals

The Consultant shall prepare necessary and detailed institutional arrangements including manuals for operation, servicing and maintenance of the works.

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5.56.6. Final Construction Report

The report shall cover all main aspects of the works, construction methods, design changes, actual conditions, quality control, problems encountered, as-built construction programme compared with original, disbursement schedule and other major aspects during construction of works. The Consultant shall submit five (5) hard copies and two [2] electronic copies of Final Construction Report to the Client within three [3] months of practical completion of each of the works packages.

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5.66.7. Project Completion Report (PCR)

Prepare a comprehensive final Project Completion Report (PCR) at the end of the assignment. This report must be submitted immediately after completion of contracts and shall summarize the methods of construction, construction supervision performed, lessons learnt, and recommendations for future projects of similar nature to be under taken by the Employer. The report should also contain summary of all reports in terms of project implementation, targets versus achievements, lessons and experience gained in project implementation, problems encountered and resolved. The PCR shall cover the relevant information on the Project pertaining to the Consultant's observation and work carried out during Defects Liability Period. The Consultant shall submit five (5) hard copies and two [2] electronic copies of Project Completion Report to the Client within three [3] months before the end of Defects Liability Period and shall cover the

relevant information on the Project pertaining to the Consultant’s observation and work carried out during Defects Liability Period.

7. Staffing Requirements

The Client intends to engage a consultancy firm with experience in engineering design and construction management of offices of similar nature and complexity. A verifiable track record of providing innovative sustainable low-cost construction solutions/designs is an advantage.

The consultant shall ensure that a team of experts and professional staff with necessary education, skill and experience is deployed for all tasks in the field of design, construction supervision, quality assurance and contract/project management of such projects. Furthermore, the consultant must provide specific professionals on construction supervision and management of contracts.

An indicative list of the positions and man-months allocation of the key professional staff /experts is given in the tables below:

Table 2 Man-months allocation for key experts.

In addition to above listed positions of key professionals; the consultant may make arrangements for other experts and support professionals with adequate experience in relevant fields.

8. Minimum required Qualifications for Key Experts

The table that follows provides the minimum required qualifications for key experts:

A. Key Staff				
Sl. No.	Position	Minimum Number of Required Staff	Man-Months Allocation	TOTAL
Phase 1: Detailed Designs and Tender documentation				
1	Team Leader	1	6	6
2	Civil/Structural Engineer	1	5	5
3	Architect	1	5	5
4	Electro-Mechanical Engineer	1	3	3
5	Quantity Surveyor	1	5	5
6	Interior Design Specialist	1	3	3
8	Environmental Safeguards Officer	1	1	1
9	Geotechnical Engineer	1	1	1
10	Land Surveyor	1	1	1
Total				30
Phase 2: Construction Supervision, Site Handover and Defects Liability Period				

Sl. No.	Position	Minimum Number of Required Staff	Construction Supervision	Defects Liability Period	TOTAL
1	Resident Engineer	1	18	3	21
2	Civil/ Construction Engineer	1	18	3	21
3	Electro-Mechanical Engineer	1	18	3	21
3	Community/Social Development Officer	1	4	0	4
4	Environmental Health and Safety Officer	1	10	0	10
5	Inspectors (2 No.)	2	36	0	36
Total					113
Grand Total					143

Phase 1 : Detailed Designs and Tender documentation				
Sl. No.	Designation	Academic Qualification Required	Professional Experience Required	Specific Experience Required
1	Team Leader	BSc (or higher) in Civil Engineering or similar (e.g. other Engineering disciplines) technical education Plus MSc. In Civil Engineering or equivalent	15 years	10 years' experience in works of similar nature and should have fully completed (in all respects) 2 or more projects as Team Leader. Required previous experience with office infrastructure design in Southern Africa region. Practical experience as Team Leader for minimum of 2 similar assignments i.e. design of office infrastructure. Must be registered with a relevant professional body. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international financing institutions such as the World Bank
2	Civil/Structural Engineer	Minimum of BSc in Civil Engineering or its equivalent	10 years	8 years' experience in works of similar nature and should have handled 1 or more office infrastructure design in Southern Africa region. Practical experience as Civil/Structural Engineer for minimum of 2 similar assignments i.e. design of and office infrastructure. Must be registered with a recognized Engineering Institution. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international

				financing institutions such as the World Bank.
3	Architect	Minimum of BSc in Architectural Studies /Design or equivalent	10 years	8 years' experience in engineering drawings and designs. Required previous experience with office infrastructure design in Southern Africa region or related urban services. Practical experience as Architect for minimum of 2 similar assignments i.e. design of office infrastructure. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international financing institutions such as the World Bank.
4	Electro-Mechanical Engineer	Minimum of a BSc in Electrical or Mechanical Engineering	10 years	10 years of working experience in assignments of similar nature. He or she must be a registered and paid up member of a local or international professional body of Engineers. Practical experience as Electro-Mechanical for minimum of 2 similar assignments i.e. design of office infrastructure. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international financing institutions such as the World Bank.
5	Quantity Surveyor	Minimum of a BSc in Quantity Surveying	10 years	10 years of working experience in assignments of similar nature. He or she must be a registered and paid up member of a local or international professional

				body of Quantity Surveyors. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international financing institutions such as the World Bank.
6	Interior Design Specialist	Bachelor's degree and professional certificate in Interior Design	7 Years	7 years of experience in interior design for structures of similar nature. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international financing institutions such as the World Bank.
7	Environmental Safeguards Officer	BSc in Environmental Sciences or Engineering or equivalent.	10 years	5 years' experience in works of similar nature and must be familiar with the environmental impacts surrounding such developments. Required previous experience with office infrastructure design in Southern Africa region or related urban services. Practical experience as Environmental Safeguards Officer for minimum of 2 similar assignments i.e. design office infrastructure. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international financing institutions such as the World Bank.
8	Geotechnical Engineer	Minimum of BSc in Civil Engineering or its equivalent	10 years	8 years' experience in works of similar nature and should have handled 1 or more office infrastructure design in Southern Africa region. Practical experience as Geotechnical Engineer for minimum of 2 similar

				assignments i.e. design of and office infrastructure. Must be registered with a recognized Engineering Institution. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international financing institutions such as the World Bank.
9	Land Surveyor	Minimum of B.Sc Land Surveying/Photogrammetry or its equivalent	10 years	At least 10 years' experience after graduation. He/She must be a Registered Land Valuer and must have a valid annual Practicing license and full membership with the Institution of Surveyors of Malawi. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international financing institutions such as the World Bank. Previous experience on bank funded projects implemented within Malawi will be an advantage.
Phase 2: Construction Supervision, Site Handover and Defects Liability Period				
1	Resident engineer	BSc (or higher) in Civil Engineering or similar technical education Plus Master's Degree in Civil or its equivalent including project management or contract management	15 years	At least 15 years' experience in construction supervision, 10 years of which should as Resident Engineer in construction management. Practical, hands-on experience in construction of Offices. Should have fully completed (in all respects) at least 2 projects of similar nature as a Resident Engineer involving planning, process design, detail engineering design, construction supervision,

				<p>monitoring and commissioning. The Resident Engineer should have demonstrable working experience on works. Must be registered with a recognized Engineering Institution. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international financing institutions such as the World Bank</p>
2	Civil/ Construction Engineer	BSc in civil engineering	10 years	<p>At least 10 years of professional experience working as Inspector of civil engineering works or other equivalent type of projects. Working experience in a similar position in at least 2 similar projects, in the past ten years. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international financing institutions such as the World Bank</p>
3	Community/Social Development Officer	BSc in Social Science, Social Work, Sociology or its equivalent	10 years	<p>At least 5 years post qualification professional working experience in construction of office projects. Working Experience in provision of Social (including sexual exploitation and abuse (SEA) and gender-based violence (GBV)), Health and Safety [ESHS] oversight on infrastructure projects; in at least Three Similar Projects size,</p>

				<p>complexity and financial magnitude.</p> <p>Familiarity with World Bank Environmental and Social Framework and guidelines (Social, Compensation and Resettlement) and Social National Regulatory Framework. At least two years working experience in Sub-Saharan African Countries</p>
4	Environmental, Health and Safety Officer	BSc in Environmental Management, Environmental Engineering,	10 years	<p>At least 5 years post qualification professional working experience in construction of offices. Working Experience in provision of Environment, Social (including sexual exploitation and abuse (SEA) and gender-based violence (GBV)), Health and Safety [ESHS] oversight on infrastructure projects; in at least Three Similar Projects size, complexity and financial magnitude.</p> <p>Familiarity with World Environmental and Social Framework and guidelines (Environmental, Social, Health and Safety and Compensation and Resettlement) and Environmental and Social National Regulatory Framework. At least two years working experience in Sub-Saharan African Countries Experience on World Bank funded projects and World Bank safeguards instruments</p>

5	Inspectors	Bachelor's Degree in Civil/Electromechanical Engineering/Construction Management,	3 years	At least 2 years of relevant experience or its equivalent in sewerage infrastructure and concrete works of similar magnitude and complexity
		or Diploma in Civil/Electromechanical Engineering with at least eight	5 years	At least 3 years of relevant experience in sewerage infrastructure and concrete works of similar magnitude
		or Technician qualifications in Civil/ Electromechanical Engineering with at least	5 years	At least 3 years of relevant experience in sewerage infrastructure and concrete works of similar magnitude and complexity. Required previous experience with urban sanitation and office infrastructure design and inspections in Southern Africa region or related urban services. Practical experience as Environmental Safeguards Officer for minimum of 2 similar assignments i.e. design of public sanitation facilities and office infrastructure. Proficiency in listening and speaking of English. Demonstrable experience with FIDIC Conditions and projects funded by international financing institutions such as the World Bank.

9. Payment Schedule

8.1. Phase 1-payment schedule

Payments for both Phase 1 and 2 of the assignment shall be based on approved deliverables. Table 3 shows the expected payment schedule (subject to negotiation with winning bidder).The contract price is a fixed output-based price regardless of extension of the herein specific duration, and will be paid based on approved key outputs or milestone as a percentage of the contract price as proposed in Table 3.

b)The computation of contract price shall be based on professional fees, office expenses, travel (where applicable), taxes, etc.)

Table 3. Payment Schedule

No.	Deliverable	Payment (% of Contract Price)
1	Inception Report	10
2	Draft design report (Drawings, Specifications, Implementation schedule); Contracting strategy and Draft Tender documents	20
	Environmental and Social Management Plans (ESMPs)	20
	Draft technical guidelines, management structure and standards for construction of offices	20
3	Final design report, contracting strategy and tender documents for Offices	30
Total		100

10. Key inputs to be provided by the Client and Consultant

The Client shall provide the following to the Consultant:

- i. Requirements of the building in terms of number of occupants to be hosted and equipment to be installed in the building, number of spaces/rooms and services to be provided by each of the spaces with a target to define the total space and floors of the building;
- ii. Location map (both hard and soft copies);

The Consultant shall, among other deliverables aforementioned, provide the following:

- i. Detailed works schedule indicating timelines and responsible personnel;
- ii. Offices and all necessary equipment and resources to carry out the assignment;

- iii. Data and Information for existing and proposed structures such as sewage lines or septic tanks, power supply, seismic information/ ground acceleration rate of 0.244, drainage system, ICT and communication lines, water system, alternative drain fields or wells (if any) and geotechnical report.

11. Reporting arrangements

The Consultant shall report to the PIU Manager for Blantyre Water Board on contractual matter and assigned Contract Manager on daily operations. The Consultant shall conduct periodic briefing sessions to keep the Client abreast of the progress of the assignment. However, official comments shall be made after review of all required submissions. These will be done within the 7-day review period.

12. Qualification of the Consultant

The Consulting Firm to be considered for this consultancy should meet the following minimum specifications:

- a) 10 years of experience in the field of architecture, engineering and construction combined. At least five (5) samples of evidence of previous products of similar nature shall be required. Similar Projects shall refer to contracts with scope of works related to the preparation of tender documents, architectural design and detailed engineering of government / public and private buildings;
- b) Demonstrated experience in designing buildings with green solutions, including solar energy and smart office equipment
- c) Demonstrated competence in conceptualization, formulation and execution of office building structure design techniques of similar nature;
- d) Demonstrated expertise in the following fields: architectural design, structural engineering, infrastructure development, earthquake engineering and construction management;