GOVERNMENT OF BELIZE
BELIZE SOCIAL INVESTMENT FUND LOAN IV (BSIF IV)

CONSULTANCY SERVICES FOR THE DESIGN OF INFRASTRUCTURE WORKS FOR FOUR BSIF IV SUB-PROJECTS.

DRAFT TERMS OF REFERENCE

1.0 BACKGROUND

1.01 The Government of Belize (GOBZ) has applied for financing from the Caribbean Development Bank (CDB), towards the cost of the Belize Social Investment Fund (BSIF) IV Project (the Project). The Project is part of an overall strategy of GOBZ to deliver multi-sector developmental projects in the areas of (1) Social Services; (2) Health Infrastructure; and (3) water supply using BSIF as the vehicle for delivery.

1.02 Proposed sub-projects under this Project comprise of:

Belize City Family Centre (One Stop Shop Facility)

1.03 The sub-project proposes to design and construct a facility to implement a one stop centre for all services related to gender based violence (GBV) offered by GOBZ and other providers. The facility is expected to serve as a model for future GBV facilities across Belize. The operation of the Facility would require a high level of coordination between government agencies such as the Ministry of Human Development (MOHD), Ministry of Health and Wellness (MOHW), Belize Police Department and the Justice Department. UNICEF has committed to providing technical assistance to assist with improving and ensuring coordination between agencies once the facility is completed. UNICEF is currently assisting MOHD in developing the multi-agency protocols. The sub-project would require a robust communication component to sensitise the Belize City resident about the new service to be offered.

1.04 The site is in the south-side Belize City on the western edge of Mosul Street, between Bagdad and Vernon Streets. The site has an existing deep foundation and RC kerb walls and a section of ground floor built. Remnants of an old building and sections of the existing foundation are to be demolished. It is proposed to as far as practical to utilise the existing foundation to site the building to improve cost efficiency. Hence, destructive and non-destructive methods along with some assumptions would have to be utilised to assess the structural capacity of the existing deep foundation.

1.05 Architecturally, the design of the facility shall be based according to international standards and guidance for One Stop Centre, services to be offered and consideration shall be given to the requirement of the individual and combined services requirements, including the manifestation of the physical needs emanating for the respective standard operating protocol for each service. The facility will likely feature a space for any NGO or partner agencies and spaces for the temporary accommodations for victims. Privacy, security, child friendly spaces, medical, interviewing and counselling spaces shall feature strongly in the design of the building and the external works.

The Design of an Expanded Polyclinic in the Orange Walk District of Belize

1.06 The sub-project is a response to the limitations in the delivery of primary health care services offered by existing Northern Regional Hospital (NRH). It proposes to relocate the primary health care services from NRH to a new turnkey facility located in the Orange Walk District. GOBZ is currently in the process of identifying and acquiring land. The site is expected to be acquired before the design of the polyclinic starts. The facility shall be a registered National Health Insurance (NHI) facility

(www.nhi.bz). The Orange Walk District is estimated to have a possible catchment population of 40,000 NHI clients. A NHI subscription would improve access to a wider range of medical services (both Public and Private services) at a lower cost. For the year 2022, the outpatient department of the NRH had over 40,000 consultations and that number is expected to grow significantly once the new facility is operational.

1.07 Architecturally, the facility shall be designed based on the service requirements of the Ministry of Health and Wellness (MOHW), including external works such as car park, walkways and fencing. As far as possible the design shall integrate PAHO's Smart Hospital initiative design concepts.

Design of the expansion of the Caye Caulker Heath Centre (Phase 2)

1.08 The Caye Caulker Health Centre is located on the southern section of Caye Caulker Island, Belize District, immediately north of the municipal airport. Phase 2 of the sub-project builds on the design done and works completed on the BSIF III Project. The proposed outcome of the sub-project is to Improve access to quality health care as the community and visitors would have access to medical personnel 24 hours daily after the completion of the phase 2. The sub-project phase 2 would complete the first floor of the health Centre to add a possible four (4) housing units for Medical Officers, inclusive of a common laundry area. The design shall address the facility's lack of a storeroom (the waste reception room is being used as a storeroom), a shared area for staff, waste reception/collection and a conference room. The services shall also cater for the relocating the generator to the rear of the compound, a car port, walkways, fencing and other external works.

1.9 It is also envisioned that the existing infrastructure may require minor upgrading.

The Design of Potable water supply network for the Corozal Free Zone

1.10 The Corozal Free Zone is located on the Belize northern border with Mexico and is built on 276 acres of land with 200 acres available for expansion. There 307 registered companies (not all are operational) and approximately 1,500 registered employees (42% female and 58% male) and an equal number of unregistered persons who ply their trade as money changers, maintenance workers, taxi drivers, etc. The Free Zone is visited by approximately 300,000 vehicles each year with over 1.1 million visitors with a yearly increase of visitors expected. The free zone lacks a sufficient potable water source and distribution network. The sub-project proposes the design of a 6.2km transmission pipeline from the Belize Water Service (BWS) Chan Chen Treatment Plant to the Corozal Free Zone along the Northern Highway and 2-4 km of internal distribution pipelines (existing area and possible expansion). The pipelines in the Free Zone will be located as far as practical to avoid the need to excavate the surfaced roads. The sub-project will as far as practical attempt to include to supply potable water to the sparsely inhabited areas along the transmission route. The modality of the construction of the pipeline network is to be finalised by BWS and BSIF and the Consultant.

1.11 The Project will be implemented by the GOBZ through the Belize Social Investment Fund. (BSIF). BSIF shall oversee the overall planning, and design of the related sub-projects.

2.0 OBJECTIVE

2.01 The objective of this consultancy is to prepare detailed designs and cost estimates, procurement documents, Environmental and Social Management Plans (ESMP), Climate Risk and Vulnerability Assessments (CRVA) and an estimate of the level of climate financing included in each of the four sub-projects. Designs shall be gender-responsive, socially inclusive, environmentally friendly and climate-resilient.

3.0 SCOPE OF SERVICES – ENGINEERING DESIGNS

3.01 The Firm shall be solely responsible for the analysis and interpretation of all data received and collected, the timely completion of designs, and the accuracy and completeness of the findings and recommendations. All designs should be least whole life cost solutions. Important data and calculations shall be presented in sufficient detail to permit verification and subsequent updating.

Inception Report (All four sub-projects)

3.02 The inception reporting requires the firm to establish sub-project requirements and refining user requirements and options, mobilising necessary key and support staff, establishing the sub-projects objectives, priorities, constraints, assumptions, consultant's observations, work plans and recommendations on the way forward. The firm is expected to execute the following activities:

a) Conduct/Attend project initiation meetings with stakeholders including BSIF and GOBZ representatives, Corozal Free Zone, Belize Water Service, National Emergency Management Organization (NEMO), Ministry of Health and Wellness, Ministry of Human Development to establish each sub-projects requirements, preferences and needs;

b) Determine approval requirements[1] (Central Building Authority (CBA), Public Utilities Commission (PUC), Department of Environment (DOE), Department of Archaeology (DOA), Local Building Authorities (LBA)) and respective stakeholder responsibilities and include in workplan;

c) Define the services to be carried out and the scope of the work required;

d) Determine the availability of information, data, drawings and plans relating to each sub-project;

e) Advise of criteria to be used for designs, design codes and design standards;

f) Inspection of site and conducting necessary surveys, analyses, geotechnical investigation, tests and other investigations where such information will be required for the preliminary design phase of the project; and

g) Provide a workplan detailing the activities to be carried out.

3.03 The Key deliverable at this stage would be an inception report which shall provide full details on how the Consultancy will be executed and a brief summary of critical issues to be addressed. The report shall include maps with projects limits; options to be considered; schedule of no objections and approvals; preliminary site investigations and subsoil investigations findings; findings of various testing undertaken; design methodologies; modelling and design software to be utilised and design criteria to be utilised; notes; etc. An agreed workplan/implementation schedule for the undertaking of the Services shall be included in the Inception Report.

Environmental and Social Management Plan (ESMP)

3.04 The firm shall take into consideration the requirements of Belize's environmental legislative framework and the Caribbean Development Bank's Environmental and Social Review Procedures[2] to develop an ESMP for each sub-project. The ESMP should define the mitigation and

[1] A registered Professional from the Association of Professional Engineers of Belize (https://apebbelize.org) is required to sign and stamp drawings, and one from the Association of Professional Architects of Belize (https://architectsofbelize.com) to sign and stamp architecture drawing of a certain size for CBA (https ://centralbuildingauthority.org) and local authority approvals and a profession with a wireman license to sign the electrical drawings and apply for permission from the Belize Public Utilities Commission (https://puc.bz/).

[2] EnvironmentalandSocialReviewProcedures.pdf (caribank.org)

monitoring requirements, and includes the specific tasks, schedule, and the budget for implementing, supervising and monitoring the environmental and social impact mitigation and management measures. The ESMPs shall include but not be limited to:

a) Sub-project description: Briefly describe the proposed works and the geographic, ecological, social, and environmental characteristics of the sub-project sites and areas of influence. The description should identify any changes anticipated before the sub-project commences and should also consider current and proposed development activities within the sub-project area that are not directly connected to the project. The description should identify any offsite investments that may be required (e.g., raw material storage facilities or temporary worker housing);

b) Potential environmental and social impacts: Quantitatively and qualitatively assesses the sub-projects' likely positive and negative impacts including the need for any temporary or permanent resettlement;

c) Planned mitigation measures: Describe the planned mitigation measures in relation to the impacts and conditions under which they are required and any residual negative impacts that cannot be mitigated. Recommend opportunities for environmental and social enhancement;

d) Monitoring programmes and parameters: Provide environmental performance indicators, parameters to be measured, methods to be used, sampling locations and frequency of measurements, detection limits and thresholds to signal the need for corrective actions;

e) Stakeholder engagement plan: This would normally include arrangements for providing information stakeholders in a timely manner, and in location(s), format(s) and language(s) that allow relevant stakeholders to form an opinion and comment on the proposed course of action. Measures should be taken to ensure good representation and attendance of impacted communities and stakeholders in the planned consultation and incorporation of their feedback, where reasonable, into the ESMP and project design;

f) Mechanisms for feedback and adjustment: Outline the procedures and mechanisms that would be used to modify the project, if needed, in light of monitoring results, and the findings of consultations.

g) Institutional arrangements for mitigation and monitoring: Define the organisational responsibilities to ensure implementation of the ESMP and the arrangements for information flow and coordination between responsible agencies. Specify the organisations and individuals that will be responsible for tasks including enforcement of remedial actions. Describe the institutional responsibilities for staffing and training.

h) Capacity building measures: Propose any required institutional strengthening measures necessary to achieve these tasks, including the formation of new structures responsible for monitoring and reporting, as required; the recruitment of new staff and consultants; and associated training.

i) Implementation schedule and work plan: Provide details on the timing, frequency, and duration of mitigation measures and arrangements for monitoring and reporting. The responsibilities and requirements of contractors are to be clearly described and

integrated into bidding/contract documents, to ensure that contractors are clear about their obligations.

j) Cost estimates: All costs for implementation of the ESMP, including operation and maintenance, should be included as a budget.

Climate Risk and Vulnerability Assessment

3.05 The firm shall screen all sub-projects for climate risks and determined the need for a detailed Climate Risk and Vulnerability Assessment (CRVA). Should any of the sub-projects require a CRVA, the firm shall produce and deliver, to the satisfaction of the commissioning organization, as per agreed schedule, a Climate Risk and Vulnerability Assessment for the proposed sub-project to be designed under the CDB supported investment project. A draft should be presented for review, followed by a final version that incorporates all comments on the draft. All data collected and created throughout the duration of the study, should be submitted in digital form (all shape files and corresponding metadata, etc.

3.06 The consultant should undertake the following tasks:

(a) Based on the Community Needs and Asset Assessment (CNAA) (if available) and the information provided by BSIF, characterize the relevant infrastructure and surrounding area. This would include:
   (i) Description of the physical and environmental characteristics of the site and surrounding area;
   (ii) Relevant features of the proposed infrastructure;
   (iii) Hazard susceptibility of the area. Refer to the CNAA (if available) to obtain information on the susceptibility of the area, for example, to flooding (inland and coastal), hurricanes, landslides and/or earthquakes. Gather any additional information on historical events and impacts in the affected communities/sites.

(b) Identify relevant climate variables and climate scenarios, based on best available secondary information[3] as locally specific as possible, for an appropriate time scale (2025 to 2050), and establish a baseline scenario of an appropriate historical period.

(c) Identify the vulnerabilities of the proposed sub-project to the projected climate change, showing how climate risks could impair or enhance performance or sustainability. The key climate risks to be addressed should be identified based on the exposure (occurrence of the climate related hazards) and the vulnerabilities of the components. This step would include learning from past weather and climate impacts.

(d) The climate risk assessment in (c) would be used to identify resilience measures to address the impacts of the identified hazards such as expected wind gusts conditions for climate change scenarios that incorporate increased intensity of hurricanes (category 4 and 5 hurricanes), flooding conditions, erosion susceptibility, etc. Both structural measures, such as modification of design (e.g., enhancing roof designs to withstand higher wind gusts) and non-structural measures (e.g., emergency management procedures or training) should be included.

[3] Secondary sources of data include Belize's Second National Communications to the UNFCCC, the World Bank's Climate Change Knowledge Portal; CARIBSAVE Climate Risk Atlas for Belize; UNDP Country Climate Risk Profiles; State of the Belize Coastal Zone, 2003 – 2013; Caribbean Community Climate Change Centre, Various Reports.

(e) The additional costs, if any, of adaptation measures should be estimated and clearly explained. The costs and benefits of the adaptation measures should be included in the economic evaluation of the sub-project.

Preliminary Design Services

3.07 The purpose of the Preliminary design is to provide BSIF and relevant stakeholders with reasonable assurance that the design of the sub-projects is proceeding in an acceptable manner and that the Firm has considered all areas that can have a major impact on the design of the project. The tasks in consultation with stakeholders shall include, but not be limited to:

Belize City Family Centre (One Stop Shop Facility)

3.08 Conducting field surveys and investigations to suitably inform the design process, in particular soil and geotechnical surveys (including deep soil investigations); topographical surveys; and locating of underground utilities. A minimum of two test pits per 1,000 square feet of the building footprint should be carried out for geotechnical investigation to determine at least the soil classification, bearing capacity and possible settlement;

3.09 Assess the load bearing capacity of the existing deep foundation utilising destructive and non-destructive means and provide a technical opinion on the reuse of the existing deep foundation to be reused for the proposed building.

3.10 Determine planning/technical requirements for the proposed facility consistent with MOHD's objectives and guided by appropriate international, regional and local best practices for similar GBV facilities, that include, but need not be limited to finish quality standards; low maintenance considerations; building code requirements (electrical, and plumbing designs must conform with the National Electrical Code (NEC 2008), and the Belize Laws Chapter 222S: Water and Sewerage Plumbing Code 2003); relevant space requirements for all GBV related services including individual GOBZ agency requirements, administrative and support services; incorporate relevant safety, privacy and security for staff, victims, children and perpetrators of GBV, secure storage of records, secure access points of the building, sound proofed rooms where necessary, thermal comfort, lighting, gender considerations, child friendly spaces considerations, facilitation of persons with physical disabilities and other necessary functional considerations; opportunities for renewable energy and energy efficiency (RE/EE) integration; mains and standby power supply; mains and backup water supply, storm water drainage, rainwater collection and re-use, high efficiency plumbing fixtures, sewage and waste disposal facilities; site access, inclusive of privacy considerations, parking, landscaping, and other amenities;

3.11 Prepare preliminary designs, taking into consideration the full range of valid recommendations from stakeholders. Designs should include the recommended contract packaging (sub-project may have multiple contracts for both good and works), implementation schedules and cost estimates;

3.12 The preliminary architectural designs should include a site plan, floor plans showing the dimensions and uses of each room, elevations superimposed on the site profile, and building sections as well as sufficient lighting and ventilation shall be included;

3.13 Prepare a preliminary design report detailing engineering survey, geotechnical investigations and analysis, architectural design process, structural design analysis report, electrical design, and sanitary design. Design parameters and results of the design calculations shall be submitted with the preliminary design report;

3.14 The firm shall estimate the cost of the sub-project inclusive of works, good and services using accepted methods. The cost estimate shall be carried out based on local rates for similar works and goods;

The Design of an Expanded Polyclinic in the Orange Walk District of Belize

3.15 Conducting field surveys and investigations to suitably inform the design process, in particular soil and geotechnical surveys (including deep investigations if deemed necessary); topographical surveys; and locating of underground utilities. A minimum of two test pits per 1,000 square feet of the building footprint should be carried out for geotechnical investigation to determine at least the soil classification, bearing capacity and possible settlement;

3.16 Determine planning/technical requirements for the proposed facility consistent with MOHW's objectives and guided by appropriate international, regional and local best practices for similar health facilities, that include, but need not be limited to finish quality standards; low maintenance considerations; building code requirements (electrical, and plumbing designs must conform with the National Electrical Code (NEC 2008), and the Belize Laws Chapter 222S: Water and Sewerage Plumbing Code 2003); relevant space requirements for diagnostic, observations, treatments, administrative and support services; operating standards for health, safety, thermal comfort, lighting, gender considerations, facilitation of persons with physical disabilities and other necessary functional considerations; opportunities for renewable energy and energy efficiency (RE/EE) integration; mains and standby power supply; mains and backup water supply, storm water drainage, rainwater collection and re-use, high efficiency plumbing fixtures, sewage and waste disposal facilities; site access, parking, landscaping, and other amenities;

3.17 Prepare preliminary designs, taking into consideration the full range of valid recommendations from stakeholders. Designs should include the recommended contract packaging (sub-project may have multiple contracts for both good and works), implementation schedules and cost estimates;

3.18 The preliminary architectural designs should include a site plan, floor plans showing the dimensions and uses of each room, elevations superimposed on the site profile, and building sections as well as sufficient lighting and ventilation shall be included;

3.19 Prepare a preliminary design report detailing engineering survey, geotechnical investigations and analysis, architectural design process, structural design analysis report, electrical design, and sanitary design. Design parameters and results of the design calculations shall be submitted with the preliminary design report;

3.20 The firm shall estimate the cost of the sub-project inclusive of works, good and services using accepted methods. The cost estimate shall be carried out based on local rates for similar works and goods;

Design of the expansion of the Caye Caulker Heath Centre (Phase 2)

3.21 Determine planning/technical requirements for the proposed expanded facility consistent with MOHW's objectives and guided by appropriate international, regional and local best practices that include, but need not be limited to finish quality standards; low maintenance considerations; building code requirements (electrical, and plumbing designs must conform with the National Electrical Code (NEC 2008), and the Belize Laws Chapter 222S: Water and Sewerage Plumbing Code 2003); relevant space requirements living, socialising, laundry areas; kitchen areas, thermal comfort, lighting, gender considerations, facilitation of persons with physical disabilities as far as practical and other necessary functional considerations; opportunities for renewable energy and energy efficiency (RE/EE) integration; mains and standby power supply; mains and backup water supply, storm water drainage, rainwater collection and re-use, high efficiency plumbing fixtures, sewage and waste disposal facilities; site access, parking, landscaping, and other amenities;

3.22 Special attention should be given to ensure that the exiting sewage disposal system has the capacity to process the new sanitary load;

3.23 Review the existing facilities and design upgrades as necessary, including but not limited to improved storage, improved waste holding, relocating generator, shaded car port, walkways, landscaping, shared area for staff and conference room;

3.24 Prepare preliminary designs, taking into consideration the full range of valid recommendations from stakeholders. Designs should include the recommended contract packaging (sub-project may have multiple contracts for both good and works), implementation schedules and cost estimates;

3.25 The preliminary architectural designs should include a site plan, floor plans showing the dimensions and uses of each room, and building sections as well as sufficient lighting and ventilation shall be included;

3.26 Prepare a preliminary design report detailing review of the previous design report, architectural design process, electrical design, and sanitary design;

3.27 The firm shall estimate the cost of the sub-project inclusive of works, good and services using accepted methods. The cost estimate shall be carried out based on local rates for similar works and goods;

The Design of Potable water supply network for the Corozal Free Zone

3.28 Conducting field surveys and investigations to suitably inform the design process, in particular soil and geotechnical surveys to estimate excavation effort; topographical and route surveys; and locating of underground utilities;

3.29 Determine planning requirements for the pipe network consistent with BWS's objectives and guided by appropriate international, regional and local best practices, that include, but need not be limited to building code requirements, demolition and reconstruction of driveways, road, culvert and drain crossings and possible expansion of the transmission to communities along the route;

3.30 Prepare a preliminary design report detailing engineering survey, geotechnical investigations and analysis, route survey analysis, estimate of current and future water demand (25 year or otherwise agreed to with BWS/BSIF), assessment of the potential for and feasibility of the BWS treatment Plant at Chan Chen to supply water to the Corozal Free Zone and/or recommendations for improving the performance to meet the demand, hydraulic design analysis report, hydraulic schematics inclusive of thrust and anchor blocks. design parameters and results of the design calculations shall be submitted with the preliminary design report;

3.31 The firm shall estimate the cost of the sub-project inclusive of works, good and services using accepted methods after the modality of construction is agreed to by BWS and BSIF. The cost estimate shall be carried out based on local rates for similar works and goods. Where BWS intend to implement the works inhouse, and estimate cost of BWS contribution is required;

3.32 Designs should include the recommended contract packaging (sub-project may have multiple contracts for both good and works), implementation schedules and cost estimates;

Detailed Design Services (All sub-projects)

3.33 Contingent upon stakeholder review and after incorporation of the feedback received from the stakeholders, draft final architectural designs must be prepared and once again presented to BSIF and the relevant stakeholders until an agreement on the draft design in achieved. Once the final draft is agreed the consultant must proceed with finalising the architectural drawings and based on the final architectural designs, the structural, electrical, sanitary, and other designs shall also be developed. The detail design service shall include but not limited to;

(a) the preparation of detailed designs for each sub-project as necessary for all building, site and local area works. The detailed designs shall be produced in accordance with accepted local and international standards;

(b) applying, obtaining and providing to BSIF the requisite approvals/permits from the PUC, CBA and local authorities;

(c) preparing and submitting the detailed technical specification for all works and goods; and Environmental, Social, Health and Safety (ESHS) Requirements specification for the works (for each of the sub-projects);

(d) preparing furniture and equipment layouts for each sub-projects (except for the Belize Free Zone sub-project) to make estimation of goods easier and to ensure coordination of the infrastructure with the furniture and equipment to be procured possibly by contracts separate from the works contracts;

(e) preparing bills of quantities/activity schedules for each sub-project (using an approved standard method of measurement) and detailed cost estimates for the proposed works, based on the designs and specifications above. Current/future costs for similar works in Belize shall be used as a basis for all unit rates/activity rates and detailed costings as far as is possible;

(f) preparing and submitting to BSIF detailed engineers estimates for all works and goods packages for each of the sub-projects;

(g) preparing and submitting maintenance plans for each of the sub-projects except for the Belize Free Zone water sub-project. Maintenance plans and maintenance scheduling shall consider the maintenance of all the building's components to have beneficiaries promote, organize, and execute routine maintenance. Areas to be covered shall include, but not be limited to maintenance of building services systems (electrical, plumbing, rainwater catchments, drainage, and sanitation components where relevant) and how to manage this process; and

(h) preparing and submitting bidding documents for each sub-project (good and works) using an approved CDB bidding document to allow BSIF to solicit bids from qualified contractors and vendors. The documents should include appropriate provisions in the technical and ESHS specifications, bid data sheet, Evaluation and qualification criteria of the bid documents, itemised items for contractor pricing in the Bills of Quantities/activity schedules. The documents should provide for the delivery of cultural appreciation training to non-local staff and management, and periodic HIV/AIDS and gender-based violence awareness and related programmes, to the workers and management during construction.

4.0 CAPACITY BUILDING PROGRAMME

4.01 There is no requirement for capacity building as part of the assignment.

5.0 INPUTS

5.01 The services of the Firm will be required over an estimated 180-day period to undertake the various activities outlined in this Terms of Reference (TOR). The Firm will provide the key personnel,

support staff, equipment and software required to carry out the assignment and be responsible for obtaining all additional information for the execution of the services necessary for the Project.

6.0 DELIVERABLES

6.01 The Firm shall provide the following documents and reports to BSIF in pdf as complete documents, as well as in their original editable formats. Electronic copies of all data used in the preparation of the reports, in their original editable formats, shall also be submitted to BSIF. The consultant will be required to submit the following reports, respectively:

(a) **Inception Report**: The Inception Report/s shall be submitted and presented no later than six weeks after the signing of the contract in keeping with 3.01, 3.02 and 3.03;

(b) **Preliminary Design Report**: The Preliminary Design Report/s will be presented no later than 12 weeks after the signing of the contract, and include the preliminary designs, construction base cost estimates, suggestions and rationale for the amount/percentage of contingency to be allowed, expected construction duration, and a list of persons consulted; including any comments on the inception report.

(c) Submission and acceptance of **Environmental and Social Management Plans** and CRVA for each sub-project (ESMP) in keeping with 3.04 to 3.05;

(d) Submission of **approved designs and specifications** by the PUC, CBA, and Local Building Authorities for each sub-project;

(e) Submission and acceptance of **maintenance plans and scheduling** for each sub-project in keeping with 3.28 (g);

(f) **Draft Final Design Report**: The Draft Final Design Report/s will be submitted no later than four weeks after receipt of comments from BSIF and stakeholders on the recommendations arising out of the Preliminary Design Report. The Report shall present the results of the activities undertaken as prescribed under Detailed Design Services;

(g) **Final Design Report**: Within two weeks of receipt of comments from BSIF on the Draft Final Design Report, the Final Design Report shall be submitted incorporating those comments; and

(h) **Completed Bid Documents**: Within two weeks of receipt of comments from BSIF on the draft final Bid documents for all works and goods for each of the sub-projects in keeping with 3.28 (h).

6.02 All reports shall be prepared in English. BSIF will provide comments on the reports within four weeks of receipt and the Firm will adjust the ongoing work according to the comments received.

7.0 IMPLEMENTATION ARRANGEMENTS

7.01 The Firm will sign a lump contract with BSIF. The assignment is expected to have a duration of 6 months. The Firm will supply all necessary human resources, offices, computer hardware and software required to deliver the services. The Consultant will be responsible for residential accommodation for their specialists, and local and international transportation. The

Consultant will also be responsible for all salaries, fees, allowances, insurance, leave pay and taxes for the staff involved in the assignment.

7.02 All available project information, reports and documents will be made available for the Firm by BSIF. BSIF has assigned the Technical Unit Coordinator (TUC) to oversee the day-to-day operations of the Consultancy. The TUC will facilitate the work of the Consultant and make available as far as practical all relevant studies, reports, and data, relevant to the completion of the exercise and will function as liaison between the consultant, GOBZ officials, and all other stakeholders.

7.03 All documentation related to the Services is and will remain the property of the BSIF / GOBZ after completion of the assignment. The Consultant shall not publish, use or dispose of this documentation without written consent of BISF or GOBZ.

8.0 QUALIFICATIONS AND EXPERIENCE

8.01 The Firm should possess experience in designing buildings[4] and water system. All key Experts[5] must have excellent communication and interpersonal skills and must be fluent in oral and written English. Fluency in Spanish and experience in the Caribbean will be an asset. More specific details as it relates to qualifications and experience are as follows:

(a) Key Expert 1: Architect/Team Leader – a minimum of a bachelor's degree in the field of Architecture, a corporate membership in a recognised professional association will be an asset, at least ten years' experience and have worked on at least two assignments of a similar nature in the past 5 years. Certification or post graduate qualifications in an environmental area, e.g. Leadership in Energy & Environmental Design (LEED), and/or training in project or construction management would be an asset. If the proposed Architect shall be proposed as the Team Leader, he/she shall demonstrate having experience as Team leader or Project manager on at least two (2) similar projects within the last five (5) years.

(b) Key Expert 2: Structural Engineer/Team Leader – a minimum of a bachelor's degree in civil/Structural Engineering, corporate membership in a recognised professional association, at least ten years' experience and have worked on at least two assignments as a structural engineer in the past 5 years. The structural engineer shall also have experience in the design of deep foundations. If the proposed Structural Engineer shall be proposed as the Team Leader, he/she shall demonstrate having experience as Team leader or Project manager on at least two (2) similar projects within the last five (5) years.

(c) Key Expert 3: Water Supply Specialist (Hydraulic Engineer) - a minimum of a bachelor's degree in Hydraulic Engineering or a related field. Additionally, the Hydraulic Engineer should have a minimum of ten (10) years of professional experience in hydraulic engineering, demonstrating expertise in the design, construction and the management of municipal water systems. The proposed Hydraulic Engineer shall display experience in at least two (2) similar projects relevant to the design of potable water networks within the last five (5) years.

(d) Key Expert 4: Cost Consultant/Quantity Surveyor – a minimum of a bachelor's degree in civil engineering or quantity surveying, and corporate membership in a recognised

[4] Experience in the design of social facilities and heath centres and polyclinics would be an asset.
[5] Note: only one team leader is required.

professional association, at least ten years' experience and have worked on at least two assignments of a similar nature.

(e) Key Expert 5: Social/Gender Development Specialist – a minimum of a master's degree in social sciences, sociology, anthropology or related discipline, with at least five years' experience in the development of Social Management Plans and managing the treatment and prevention of GBV. Experience and training in gender analysis, qualitative and quantitative data collection and analysis would be an asset.

(f) Key Expert 6: Environmental Specialist – a minimum of a master's degree in environmental sciences, Environmental Engineering, Environmental Management or a related discipline. At least five years' experience in environmental safeguards including the development of Environmental and Social Management Plans. The expert shall demonstrate having experience as an Environmental Specialist on at least two (2) similar projects within the last five (5) years. Qualifications in Occupational Health and Safety would be an asset.

(g) Key Expert 7: Climate Change Specialist – an advanced degree in environmental science or a related discipline. At least five years' experience in climate change risks, mitigation and adaptation is required. Extensive knowledge of the natural hazard and climate change context in the Caribbean region would be an asset. Familiarity with the Belize institutional framework and ongoing programs would also be an asset.

8.02 It is the consultant's responsibility to ensure that the team has an appropriate mix of key and non-key experts required to satisfy the requirements of the Terms of Reference (TOR).

9.0 COMMENTS BY THE FIRM

9.01 The firm is required to review and understand the scope of services and be able to produce the acceptable deliverables as outlined in the TOR. Consultant must organise, manage necessary experts, and support staff members transportation and logistics required to complete the assignment and accordingly quote all the financial requirements in their financial proposal.

9.02 The Firm is requested to make comments on, and suggestions for, improvements to these TORs, if any. The financial implications, if any, of these recommendations should be indicated separately in their Financial Proposal.

10.0 INSURANCE REQUIREMENTS

10.01 The firm for the duration of the assignment and up to six (6) months after the final submission shall provide Professional liability insurance with a maximum deductible of 2% of the insured sum and with a minimum coverage of the contract price and Third Party Liability Insurance with a maximum deductible of third party property is 2% of the insured sun and the minimum insurance of other property is USD50,000 for any one occurrence.