

**Saint Vincent and the Grenadines
Strengthening Health System Resilience Project**

Terms of Reference

Construction Management Consultant

SVG-SHSRP-C-QCBS-1

**Economic Planning Division
Ministry of Finance, Economic Planning and Information Technology
Kingstown,
Saint Vincent and the Grenadines**

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I. Introduction

A. Project Background

Saint Vincent and the Grenadines (SVG), a member of the Organization of the Eastern Caribbean States (OECS), is comprised of 32 small islands and cays spanning an area of 389 km² with a population of 110,947 people. SVG is a small state and an upper middle-income island economy that depends primarily on services, mainly related to tourism. SVG has a gross domestic product (GDP) of US\$7,879 per capita (IMF 2021) (Atlas method) with a life expectancy of 73 years (2019).

SVG is highly vulnerable to natural disasters. Increased intensity of, and continuous exposure to, multiple hazards such as hurricanes, flooding, and sea-level rise, are destroying health care infrastructure and service facilities and degrading them over time. Rising temperatures and changes in rainfall patterns are expected to increase the range and prevalence of vector-borne diseases, e.g., malaria and dengue, and the incidence of water-borne illnesses and increase risks for the population affected by non-communicable diseases (NCDs). SVG health facilities require improvements to enhance their long-term resilience by integrating adaptation and mitigation measures in future construction, governance and service delivery. Such measures will have financial and social benefits and positive impacts on health outcomes.

The health service delivery network is composed of a dated public sector model and unregulated private sector. The public sector includes 45 primary healthcare (PHC) facilities (37 district clinics, 5 rural hospitals and 3 polyclinics), 2 secondary level facilities (the Milton Cato Memorial Hospital (MCMH) in the capital, Kingstown and the Modern Medical Complex in Georgetown), and 2 long-term facilities (Lewis Punnett Home for the Elderly and the Mental Health and Rehabilitation Center). There is no tertiary level facility in the country.

The Government of Saint Vincent and the Grenadines (the GOSVG) has identified formidable constraints with regards to the capacity and organization of its public health service network to deliver quality health care efficiently. Hospital service capacity is limited due to major infrastructural challenges, a narrow service profile and insufficient qualified personnel. The challenges of the MCMH hospital, established in early 19th century and gone through restructuring and refurbishment in 1900s, are both structural and functional, including a limited-service portfolio and weaknesses in quality of care. Structurally, there is an urgent need to replace the existing building due to major defects. The limited availability of specialist care, particularly for NCDs, drives demand for overseas treatment, estimated to be around US\$15-20 million annually. On the other hand, primary facilities are underutilized given trust and quality issues, largely due to governance challenges and limited financing at the primary facility level to improve service organization and quality. As a result, there is an over-reliance on hospitals to deliver primary-level services, which leads to higher concentration (congestion) of patients at the main hospital, affecting quality.

In response to these challenges and constraints, the GOSVG aims to leverage the development of a new hospital to update the service delivery model and strengthen health care quality management and the referral system across the primary and hospital levels. In particular, it is pursuing a two-pronged approach to redevelop and modernize the health sector:

- (a) at the hospital level, the GOSVG will expand the scope and improve the quality of secondary care services. Central to this vision is the construction of the new Arnos Vale Acute Care Hospital (AVACH or the hospital). The MOHWE is considering the provision of some categories of tertiary care within the AVACH based on a market assessment and cost-efficiency. A Hospital Strategic Plan (HSP) is being prepared to define AVACH's service profile, building on Sint Maarten's Medical Center (SMMC) experience.

- (b) the MCMH will serve as a Maternal and Child Health Hospital (MCHH) and provide maternity and pediatric services. It will house the pediatric surgical center of excellence, operated by the World Pediatric Project, financed mainly through grants¹.
- (c) at the system level, the GOSVG is planning to use the AVACH and repurposing of MCMH to leverage primary care, specifically, by improving service quality, the referral and counter-referral system and the NCD care management model.

The Strengthening Health System Resilience Project (SHSRP or the Project) is designed to support the GOSVG with strengthening hospital services and health system resilience, Project management and provision of flexible financing for contingent emergencies. The Project will finance:

- (a) the development of a modern, safe and “smart”² acute care hospital with a service profile that responds to the burden of diseases and manages higher complexity cases,
- (b) strengthening the health system’s capacity to plan and respond to emergencies and maintain core functions when crises hit,
- (c) support the implementation of the National Health Sector Strategic Plan’s vision of “redevelopment and modernization of the sector” to improve the quality and sustainability of the health system.

II. Project Components

The Project has four components that complement each other to achieve the Project Development Objective (PDO) defined as “to increase the scope and quality of hospital services, strengthen health system resilience, and provide immediate and effective response to an eligible emergency”:

- (a) Component 1 – Development and Launch of a New Acute Care Hospital
- (b) Component 2 – Strengthening Health System Resilience
- (c) Component 3 – Project Management, Coordination and Evaluation
- (d) Component 4 – Contingency Emergency Response Component.

PDO indicators, Intermediate Results Indicators by components, respective evaluation and monitoring plans, description of the Project components are provided in the Project Appraisal Document³. The total Project cost is about US\$101 million.

III. Institutional Arrangements

The project is being implemented jointly by the Ministry of Finance, Economic Planning and Information Technology (MOFEPIT) and the Ministry of Health, Wellness and the Environment (MOHWE).

The Project implementation arrangements that have a multi-layer structure are shown in Figure 1 and require the participation of a number of national agencies and institutions.

Roles and responsibilities of the key Project stakeholders are described in Table 1 below.

¹ The physical space occupied by these wards was refurbished and upgraded in 2017 and 2014, respectively and are structurally sound. Under a Memorandum of Understanding with the GOSVG, the World Pediatric Project (WPP) has developed a pediatric surgical center of excellence that provides advanced surgical care to children in the Eastern Caribbean.

² “Smart” is used both in terms of energy efficiency (“green” building) and the use of digital solutions to improve organization efficiency (e.g., care pathways) and patient experience.

³ <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/107971659637418302/st-vincent-and-the-grenadines-strengthening-health-system-resilience-project>

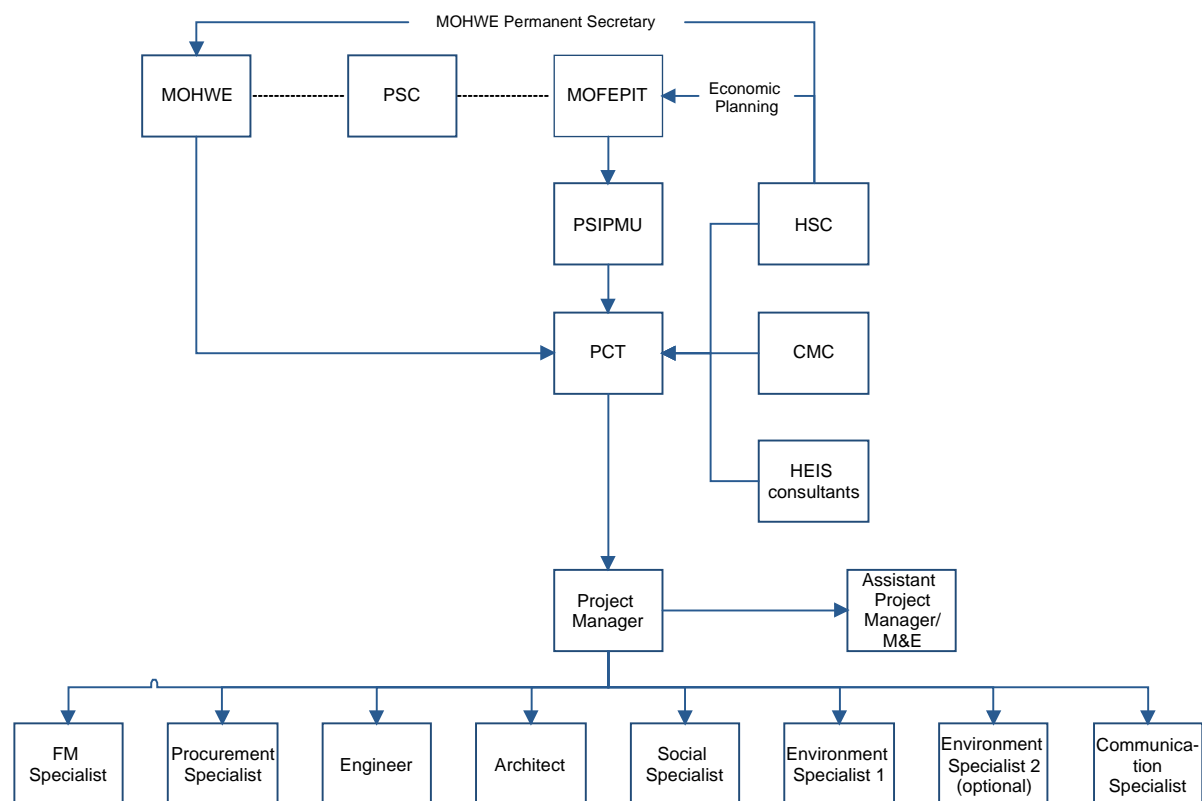


Figure 1. Project Implementation Arrangements

Table 1. Roles and Responsibilities of Key Project Stakeholders

Project Stakeholders	Composition	Roles and Responsibilities
Project Steering Committee (PSC)	MOFEPIT, MOHWE and other public agencies, statutory bodies and associations as required	<p>High-level oversight to steer key decisions and policies on reforms required to develop (construct and operationalize) an improved hospital system and a resilient health system. The PSC will be co-chaired by MOFEPIT and MOHWE with the following component-specific oversight responsibilities, aligned with the technical skills required for the given component:</p> <ul style="list-style-type: none"> (i) Component 1 is chaired by MOFEPIT due to the inhouse capacity already in existence for procurement, safeguards and fiduciary management for construction, (ii) Component 2 is chaired by MOHWE given the technical skills required to guide the direction and implementation of sector reform, and (iii) Component 3 is chaired by MOFEPIT with support of MOHWE.
World Bank		<ul style="list-style-type: none"> - provide financing for the Project, technical assistance and advice in Project planning and implementation - observe the Project implementation to ensure compliance with the provisions of the Financing Agreement and achieve the Project objectives
OFID		<ul style="list-style-type: none"> - provides financing for component 1 of the Project (Part 1.1), for the construction of the AVACH hospital under a bilateral co-financing agreement with MOFEPIT
MOFEPIT	line departments and units, including Public Sector Investment Project Management Unit (PSIPMU)	a government counterpart in charge of the Project implementation and will act as an implementing agency
MOHWE	line departments and units	a project co-owner and guidance on implementation of the sector reform
Project Coordination Team (PCT)		a dedicated implementation team that will be responsible for project planning, procurement, financial management, quality assurance, quality management, monitoring and evaluation, safeguards compliance and development and implementation of communication strategy. The PCT will consist of the roles listed below.

Project Stakeholders	Composition	Roles and Responsibilities
	Project Manager	<ul style="list-style-type: none"> - oversee project management, and coordinate between the implementing ministries, the World Bank and other key stakeholders - report to the Director of Economic Planning and liaise with the MOHWE PS
	Assistant Project Manager/M&E	<ul style="list-style-type: none"> - support project planning and management and will be responsible for project monitoring and evaluation - provide technical input on highly technical, sector-specific data gathering, monitoring and interpretation of the results and will be supported by the CMC for Component 1
	Engineer and Architect	<ul style="list-style-type: none"> - support contract management and quality assurance for activities under components 1 and 2
	Social Specialist and Environmental Specialist	<ul style="list-style-type: none"> - responsible for day-to-day work on Project environmental and social issues - to be supported by the a PSIPMU's environment and social specialists
	Optional Environment Specialist/Engineer	<ul style="list-style-type: none"> - support with implementation of sustainability and green measures
	Procurement Specialist	<ul style="list-style-type: none"> - manage the Project procurement activities - to be supported by the CMC
	Financial Management (FM) Specialist	<ul style="list-style-type: none"> - manage fiduciary aspects and ensure compliance with FM reporting requirements
	Communication Specialist	<ul style="list-style-type: none"> - support development and implementation of a communication strategy
AVACH and MCMH Management Teams		<ul style="list-style-type: none"> - support planning, implementation, acceptance, taking over, operation and maintenance of the new hospital, including transfer of services and equipment from MCMH to AVACH and ensuring continuity of services
Hospital Services Authority	To be established	
Construction Management Consultant (CMC)	a multidisciplinary team	<ul style="list-style-type: none"> - as per this Terms of Reference

Project Stakeholders	Composition	Roles and Responsibilities
Health Sector Consultant (HSC)	a multidisciplinary team	<ul style="list-style-type: none"> - under the oversight of the Permanent Secretary of the MOHWE, responsible for providing evidence-based technical advice to the Director of Economic Planning and supporting the Project implementation under Component 2
Hospital Strategic Plan Consultant	a multidisciplinary team	<ul style="list-style-type: none"> - assists the MOFEPIT, MOHWE, the PCT and other Project stakeholders as may be necessary with the implementation of Component 1 and Component 2 of the Project, with focus on the activities directly related to the operational readiness of the AVACH and MCHH, specifically the development and implementation of the HSP and transition plan.
Operative Team	To be established by the GOSVG	<ul style="list-style-type: none"> - to coordinate and manage the implementation of the Hospital Strategic Plan
Procurement Hands-On Extended Implementation Support (HEIS) Consultant	procurement support	<ul style="list-style-type: none"> - procurement – support with establishment of the PCT, capacity building, procurement planning and implementation, including preparedness for procurement of the hospital construction, medical and laboratory equipment, hospital strategic plan, CMC and HSC
Engineering Consultant	a multidisciplinary team	<ul style="list-style-type: none"> - strengthen engineering expertise to carry out procurement of the AVACH construction, including the detailed design finalization and technical assistance during the bidding and proposal evaluation processes - provide support with updating Environmental and Social Impact Assessment
Central Procurement Board	seven members - four members are public officers, and three private sector representatives appointed by the Minister of FEPIT	<ul style="list-style-type: none"> - approve pre-qualification, initially selected or shortlisted suppliers, contractors and consultants to be invited to bid or request for proposals or quotations as well as contract awards above EC\$45,000
Ad-hoc Evaluation Committees	suitably qualified experts depending on the required expertise and the procurement scope and complexity	<ul style="list-style-type: none"> - evaluate bids, proposals and quotations
Ad-hoc Review Committee	normally, a chairperson and two more members with relevant qualifications	<ul style="list-style-type: none"> - handle procurement-related complaints in accordance with the provisions of the Procurement Regulations

Project Stakeholders	Composition	Roles and Responsibilities
Other Participating Agencies, Statutory Bodies, and Committees	-	<p>support with the Project implementation within authority of various agencies, statutory bodies and committees such as:</p> <ul style="list-style-type: none">- Physical Planning and Development Board (PPDB)- Ministry of Transport, Works, Lands and Surveys, and Physical Planning- Ministry of National Mobilization, Social Development, Family, Gender Affairs, Youth, Housing and Informal Human Settlement- Attorney General's Chambers- National Emergency Management Organization (NEMO)- Saint Vincent Electricity Services Limited- Central Water and Sewerage Authority, etc.

IV. Objectives

Given the critical importance of the AVACH establishment for strengthening hospital services and health system resilience and achieving PDO, the GOSVG decided to engage a qualified Construction Management Consultant (CMC or the Consultant) with the purpose to provide the MOFEPIT, MOHWE, the Project Coordination Team (the PCT) and other Project stakeholders as may be necessary with the following support to ensure the Project activities under Component 1 will be carried out in the most efficient, cost-effective, and well-coordinated manner:

- (a) support with management of Project activities under Component 1, including monitoring and evaluation of project activities including social and environment, health and safety issues,
- (b) technical support,
- (c) procurement support,
- (d) AVACH construction supervision,
- (e) contract management – goods and non-consulting services, and
- (f) capacity building.

V. Scope of Services

The Consultant shall assist MOFEPIT, MOHWE, the PCT and other Project stakeholders as may be necessary with the implementation of Component 1 of the Project in accordance with the Financing Agreement, Project Appraisal Document, the Procurement Plan, the Project Operations Manual, the Environmental and Social Impact Assessment and Management Plan (ESIA & ESMP), the Environmental and Social Commitment Plan (ESCP), the Procurement Regulations for IPF Borrowers dated November 2020 (“the Procurement Regulations”), Guidelines on Preventing and Combatting Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants dated 15 October 2006, and revised in January 2011 and as of 1 July 2016 (“the Anti-Corruption Guidelines”) and other Project documents as appropriate. The Consultant is required to deliver the services with due consideration of the World Bank Environment and Social Framework, and adherence to the national legal and regulatory frameworks and industry best practices.

A. General Considerations and Other Activities this Contract Should be Coordinated with

1. AVACH Detailed Design, including Technical Requirements for Medical and Other Equipment

The AVACH design, supported by the World Bank-financed Regional Disaster Vulnerability Reduction Project (RDVRP) (P117871 and AF P146768), was completed in February 2022, with some delays due to the pandemic and the fallout from the volcano eruption. The updated construction cost is estimated at around US\$71.7 million, exclusive of the value added tax (VAT) which has been waived for the construction contract.

The AVACH will have about 135 beds and be complete with all necessary medical, non-medical, facility specific HCWM and other equipment and systems. The AVACH will be located on the site of the decommissioned E.T. Joshua Airport in Arnos Vale - about 4.8 km or 3 miles from the existing MCMH that will continue to function as a hospital specialized in maternal and paediatric care.

The duration of the construction is expected to be three (3) years followed by a one-year defect notification period.

Meirovich Consulting (hereinafter “the Engineering Consultant”) was contracted to review the AVACH detailed design and functional requirements (clinical and non-clinical). The gaps in the detailed design

and other finding were presented in the report “Review of infrastructure aspects of the AVACH” and include but not limited to:

- (a) design of laboratory, imaging and Central Sterile Service Department areas
- (b) electric / photo voltaic design
- (c) water heating, wastewater treatment, healthcare waste management and fire protection solutions
- (d) design for supply of medical gases, including, for example, consideration of the need of a new oxygen generation plant and medical gases piping to bedhead units.

The Engineering Consultant was also contracted by the GOSVG to finalise the detailed design and the Environmental and Social Impact Assessment (ESIA) in accordance with the above findings as well as development of medical, laboratory and other equipment drawings and updating of the technical specifications. Given the above, a Design-Bid-Build option following prequalification and one-stage one-envelope bidding procedure is considered preferable and will further be tested during the early market engagement.

The IFC Green Edge Buildings tool (<https://edgebuildings.com/>) and the PAHO Smart Hospitals Toolkits were used when reviewing the design and associated gaps to optimize construction and operational choices, including construction materials and energy options.

2. Environmental and Social Impact Assessment

The ESIA and the Environmental and Social Management Plans (ESMPs) will be updated by the Engineering Consultant before commencing the bidding process for the AVACH construction. It includes, but is not limited to, the following:

- (a) Review existing studies⁴ and identify and assess any new potential impacts;
- (b) Review and evaluate detailed design plans for the AVACH;
- (c) Review stormwater drainage plans and existing studies, and ensure that the final site stormwater drainage is adequate;
- (d) Review solid and healthcare waste management design elements and equipment, and ensure it is adequate and consistent with national plans (if available);
- (e) Review existing studies, designs, and traffic management plans for construction and operation, and ensure they are adequate;
- (f) Review existing data and assess potential for cresol, hydrocarbon, and aqueous film forming foam (AFFF) contamination in soil and groundwater beneath the AVACH site;
- (g) Update the estimate on total and types of labour, including migrant workers, including labour influx, as well as other aspects of the LMP as required, risks and associated mitigation measures linked to labour and working conditions, such as discrimination, unequal pay and other working conditions;
- (h) Collect (if necessary) and incorporate additional social baseline data on SEA/SH macro and local level data (incidence rates, prevalence of hot spots, etc.), composition and ethnicities of Pole Yard community grievance mechanisms that may exist;
- (i) Update risks and mitigation measures described in LMP, SEP and GRM, and integrate with all updated ESMPs and management plans;

⁴ Existing studies include the ESIA prepared in 2018 and 2022, the Geotechnical Report and other preliminary design documents prepared in 2018, the design review prepared in 2022, and any updated design documents prepared during implementation.

- (j) Review CWSA water supply for the community and new AVACH facility, and develop a Water Management Plan if required;
- (k) Following UN Convention of Rights of People with Disabilities 2006, signed by SVG, ensure that all design plans and provisions for any facilities included in the project which are open or provided to the public, take into account accessibility for persons with disabilities and other groups with specific functional requirements, such as older persons or children. For that purpose, international reference, such as the prescriptions of the *ISO 21542: Accessibility and usability of the built environment or equivalent* should be acknowledged and followed.
- (l) Include new design, new schedule, update of construction procedures and/or operations plans;
- (m) Review liquid waste management options and verify adequacy of package plant and/or septic backup; design, if necessary, by pass/backup septic tank and soak pit facility for treatment plant maintenance period;
- (n) Provide guidance to prepare Contractor Environmental and Social Management Plan (C-ESMP);
- (o) Revise ESMP as needed to mitigate any newly identified impacts or risks;
- (p) Update the following plans as required:
 - Waste Management Plan (WMP)
 - Emergency Preparedness and Response Plan (EPRP)
 - Traffic and Road Safety Plan (TRSP)
 - Community Health and Safety Plan (CHSP)
 - Occupational Health and Safety Plan (OHSP)
 - Environmental and Social Training Plan (ESTP)
 - SEA/SH Action Plan

3. Other Related Activities and Their State of Completeness

The service delivery should be coordinated with legislative and regulatory frameworks, strategies and plans that will be developed and adopted under the Project:

- (a) finalisation and implementation of the Hospital Strategic Plan (HSP)

The draft Hospital Strategic Plan has been developed, including a clearly defined vision, mission, strategic objectives, and high-level assessments in the following core areas:

- (i) health sector market analysis
- (ii) service profile with consideration for resources (e.g., strategic staffing⁵).

The AVACH will provide an expanded scope of quality hospital services to align with changing health care needs that are expected to include:

- a. services in all domains of acute hospital care including trauma care, acute care surgery, urgent care, critical care, emergency medicine, inpatient stabilization, and outpatient care
- b. a full range of allied health services required to support diagnostic, treatment, and rehabilitative interventions, including medical laboratory technology, radiography, pharmacy, audiology, optometry, physical therapy, psychology, social work. The viability of expanding the service profile of AVACH to include some tertiary services currently accessed overseas will also be explored.

⁵ A Human Resources for Health strategy / strategic workforce plan for the AVACH, as part of the Health Strategic Plan, is to be developed and executed by the GOSVG to ensure business continuity, effective care, patient safety and satisfaction. Human Resources for Health development and management will be a centre piece to modernizing the governance and management of hospitals and will contribute to the project's vision of maintaining stable service quality during shocks and emergencies.

- c. an increased capacity to treat climate-induced diseases and injuries, such as those resulting from heatwaves, hurricanes, and other climate shocks, which are expected to increase in frequency and severity in the future.
 - d. a major role in the treatment component of the non-communicable diseases management cascade.
- (iii) functional review of the design to inform the construction of the new hospital and related procedures, temporary facilities and essential upgrades to avoid service disruptions in the event of a climate or other disasters, such as an extreme weather event, financing aspects, pre-building processes
 - (iv) hospital governance and management and organization (legal status, organizational structure and organizational transition)
 - (v) financial model (projections, income and balance sheet), including considerations for macro-economic impact, and
 - (vi) transition planning, including innovative opportunities.

The HSP finalisation will, among other things:

- detail Human Resources needs in the context of the improved hospital governance and financing models, including considerations on increased autonomy for the hospital to recruit staff, review of contract types to attract local and international specialists, and application of bonding agreements to retain staff trained using public resources
- consider and propose climate mitigating solutions for managing waste, improving water and electricity consumption for sustainability, and local food sourcing options
- contain annual targets for the strategic priorities to assess progress.

The GOSVG will appoint an Operative Team that will benefit from capacity strengthening, and will be mandated to coordinate and manage the implementation of the HSP.

- (b) development and implementation of a Transition Plan.

Development of the Transition Plan is an on-going activity supported by the World Bank to ensure a smooth transition from the MCMH to the AVACH. It will integrate existing and planned GOSVG structures to effectively plan and manage transition process.

The Transition Plan implementation will involve management training and capacity strengthening in clinical and administrative areas, logistical plans and moves to ensure a smooth transfer of equipment, management and monitoring of the Human Resources transition, changes in procedures related to the improved governance and financing models, and, lastly, supporting overall change management and strategic communication with stakeholders.

- (c) strengthening Health Care Waste Management.

The Project will support the development of a hospital specific HCWM strategy for the AVACH in support of the MOHWE and the Central Waste and Sewage Authority (CWSA), the Government agency responsible for waste management. The OECS Regional Health Project supports the development of a national HCWM strategy, and this specific strategy will feed into the national strategy.

- (d) strengthening Legislative and Regulatory Frameworks

The Project will also extend support to the MOHWE and the Attorney General's Office to review and strengthen the legislative and regulatory framework governing the provision of health services and goods through the public and private sectors.

- (e) National Health Sector Strategy

The National Health Sector Strategy will be updated as part of strengthening sector policy and strategy development. The updated strategy assumes establishment of a new hospital

governance model to include AVACH and to move from a fully public entity toward to a new autonomous Hospital Services Authority.

(f) Health Financing Policy and Strategy

The development of the Health Financing Policy Strategy by the MOHWE, with technical assistance provided under the Project, will be closely coordinated with the MOFEPIT and aligned with public finance management and macro-fiscal considerations. As part of modernizing health financing, the Project will support the development of an improved hospital financing model, including considerations for improved revenue source diversification and cost recovery for sustainability, and enhancement of the budgeting and resource allocation process with a prospective provider payment model to transfer resources to the hospital and introduce performance incentives while keeping costs contained.

B. Support with Management of Component 1, including Monitoring and Evaluation

The Consultant is required to support MOFEPIT, MOHWE, the PCT and other Project stakeholders as may be necessary in the following areas:

- (a) review Project documents, studies, plans, strategies, detailed design, ESIA and related documents, report “Review of Infrastructure Aspects of the AVACH” providing findings, technical opinion and recommendation on the AVACH detailed design, as well as legal and regulatory frameworks.
- (b) Prepare and submit an Inception Report that should demonstrate that the implementation of the Project activities are resourced adequately and will be carried out in a timely, cost-effective and well-coordinated manner with a robust process for quality assurance and risk management in place. In this context, the Inception Report should include, but not limited to, the following:
 - (i) initial findings of AVACH documentation reviews
 - (ii) identified risks and proposed risk mitigation measures addressing, among other things, COVID-19 and environment and social issues, communication procedure, contract management arrangements and preparation of contract management plans, using a recognized industry standard methodology
 - (iii) quality assurance procedures
 - (iv) elaborated work programme reflecting interrelations of the Project activities and methodology for each area of support and identify anticipated outputs, required inputs and time and resource-bound activity schedule
 - (v) be sufficiently detailed to indicate how the objectives of the assignment will be met.
- (c) support and guide the PCT with developing and updating a consolidated Project implementation plan for Component 1.
- (d) support the PCT with coordination of the Project activities under Component 1, including input of the national Project stakeholders.
- (e) apply an established structured and internationally recognised Project Management Methodology such as PRINCE2, PMBOK or similar.
- (f) establish a web-based Project Management Information System to keep records on detailed design, technical requirements, procurement procedures, signed contracts, including Bill of Quantities, progress reports, minutes of meetings, certification of contractor’s and suppliers’ invoices, completion and acceptance reports and other relevant documents. The system should be accessible by users of the Consultant, PCT, MOFEPIT, MOHWE, contractors, the World Bank and other institutions as may be authorised by PCT.

- (g) support and guide the PCT with updating monitoring and evaluation arrangements for Component 1 in compliance with Financing Agreement provisions, PAD, POM and other relevant regulations.
- (h) support and guide the PCT with monitoring the Project activities and the indicators under Component 1 as given in the Results Framework and Monitoring.
- (i) support the PCT with preparation of a mid-term review report and provide guidance for data collection for the Project Completion Report.

C. Technical Support

The Consultant is required to provide the PCT, MOFEPIT, MOHWE and other Project stakeholders as may be necessary with support at all stages of the procurement and contract management cycle for the procurement packages listed in Annex 1 to the Terms of Reference – early market engagement, initial selection, preparation of technical sections of procurement documents, pre-bid meetings and site visits, bid and proposal evaluation, price analysis, supervision of the hospital construction, contract management, acceptance and taking over, etc.

- (a) update a list of equipment and other goods to be aligned with the AVACH service profile, including a list of equipment to be transferred from MCMH to AVACH and non-consulting and other related services.
- (b) support with implementation of the Transition Plan, referred to in paragraph V. A. 3. (b) above, by developing and implementing a plan for physical transfer of equipment and assets from the MCMH to the AVACH that ensures continuity of services during the transition period.
- (c) update market analysis and support with early market engagement, including preparation of invitations, presentations, minutes and other documents, to obtain up-to-date data, improve market knowledge and understanding, make the Project procurement attractive for potential bidders and proposers, encourage sustainable and innovative solutions and optimise procurement arrangements.
- (d) develop a maintenance strategy and plan for the hospital building and engineering infrastructure and develop a maintenance strategy and plan for the existing and new equipment that will be supplied/transferred to and installed in the AVACH considering improved hospital financing models as per the Hospital Strategic Plan and the Health Financing Policy and Strategy and capacity, market and logistic constraints as may be identified in findings of the updated market analysis and the early market engagement.
- (e) update and, if necessary, develop technical requirements for medical, laboratory, medical diagnostic imaging and other equipment, goods and non-consulting services for transfer of equipment from the MCMH to the AVACH, including sustainable requirements, supplementary information, environmental and social standards, training, technical documentation, maintenance and support services, etc. In preparing technical requirements, consideration should be given to equipment and goods standardisation, backing-up, existing technical capacity of clinical and technical staff, etc.
- (f) ensure that the technical requirements for design and provisions for any facilities included in the Project, which are open or provided to the public, take into consideration all aspects of accessibility for persons with disabilities and other groups with specific functional requirements, such as older persons or children.
- (g) update cost estimates for goods and non-consulting services with breakdown by cost item such as supply, installation and other related services, life-cycle, training and other costs based on the agreed maintenance strategy and plan referred to in paragraph (d) above and updated market research.

- (h) prepare and update cash-flow forecasts for all contracts/procurement packages defined in Annex 1 to the Terms of Reference.
- (i) develop, with due consideration of findings of the updated market analysis and the early market engagement, qualification criteria to be used for initial selection, post-qualification, as well as evaluation criteria and methodology, including weighted criteria, for evaluation of proposals and bids.
- (j) in accordance with Annex XI. Contract Management of the Procurement Regulations, develop and update contract management plans, identifying, among other things, critical milestones and expected completion and acceptance dates, risks and risk mitigation measures, actors and their roles and responsibilities, required resources, key performance indicators as well as considering simultaneous work of contractors and suppliers on the same project site such as construction works and equipment supply and installation, local market constraints and other factors that may affect the implementation of the contracts. Preparation of the contract management plans should be initiated when drafting the bidding documents and then updated as procurement and contract implementation progress.
- (k) technical support during selection process, bid and proposal evaluation, construction supervision and contract management are detailed in the subsequent sections.

The expected level of the technical support may vary for different procurement packages depending on their complexity, completeness of technical documentation, required inputs, etc. and defined in Annex 1 to the Terms of Reference.

The input related to preparation of the above documents should be coordinated with the respective Project stakeholders, contractors, consultants and suppliers to ensure compliance with legal and regulatory frameworks, codes, standards and other documents including those to be developed and adopted under the Project.

The technical parts of the procurement documents must be in the formats provided in the Standard Procurement Documents or other formats acceptable to the World Bank and appropriate for a small island context.

D. Procurement Support

The Consultant shall participate in the procurement process in an advisory role and support the PCT, MOFEPIT, MOHWE, ad-hoc Evaluation Committees and ad-hoc Review Committees with carrying out procurement of goods and non-consulting services listed in Annex 1 to the Terms of Reference. The required support and guidance will include, but will not be limited to, the following:

- (a) update the PPSD and the procurement plan in part of Component 1 based on the updated market analysis and the list and cost estimates of goods and non-consulting services and/or the findings of the early market engagement. It may result in updating the list of contracts for goods and non-consulting services given in Annex 1 in order to optimise the implementation schedule, sequence of activities and procurement packaging.
- (b) timely provide information and data required to record all procurement and contract management actions under Component 1 of the Project in Systematic Tracking of Exchanges in Procurement (STEP).
- (c) support with obtaining approval of PPSD and procurement plan updates by the World Bank.
- (d) prepare Initial Selection Documents, including Specific Procurement Notice, for procurement of equipment as defined in the updated Procurement Plan using appropriate Standard Procurement Documents and support with obtaining approvals of the Central Procurement Board and the World Bank.
- (e) prepare clarifications of, and addenda to, the Initial Selection Documents.

- (f) open applications for initial selection, preparation of application opening records.
- (g) evaluate applications, prepare initial selection evaluation reports and support with obtaining approvals of the Central Procurement Board and the World Bank.
- (h) develop complete sets of procurement documents (Specific Procurement Notice, if necessary, Requests for Proposals, Requests for Bids, etc.) using appropriate Standard Procurement Documents (with ESHS specifications to deliver ESHS requirements set out in the ESIA, ESMP and other relevant project documentation) and support with obtaining World Bank's no-objection, as necessary.
- (i) hold pre-proposal and pre-bid meetings, including site visits; prepare clarifications of, and addenda to, the procurement documents and pre-proposal and pre-bid meeting minutes; and support with obtaining World Bank's no-objection to the addenda, as necessary.
- (j) open bids, technical and financial proposals as appropriate, prepare bid and proposal opening records.
- (k) evaluate bids and technical and financial proposals, prepare evaluation reports using standard evaluation forms and support with obtaining approval of the Central Procurement Board and the World Bank, as necessary.

The bid and proposal evaluation includes technical support with determination of compliance of the technical proposals with the provisions of the procurement documents such as technical specifications, proposal and bid completeness, sustainability requirements, value addition, etc.; scoring based on the weights, evaluation criteria and methodology defined in the procurement documents; price analysis; proposers' and bidders' qualifications and experience.

- (l) debriefing and procurement-related complaints handling and support with obtaining approval of the World Bank, as necessary.
- (m) prepare contracts and coordination of contract signing procedure.
- (n) update procurement-related risk assessments, risk mitigation measures and contract management plans.

E. Hospital Construction Supervision

The construction supervision should be executed in accordance with the requirements of the contract documents, approved plans, specifications, building codes/standards and applicable local and regional codes.

During the construction process, the Consultant will act as the Client/Employer's Engineer in accordance with "Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer ("Red book") Second edition 2017" published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC) and respective "Particular Conditions".

To achieve the construction supervision objectives, the Consultant is required to perform the following tasks:

1. Coordination, Meetings and Documentation

- (a) organize and conduct a kickoff meeting with the contractor, PCT, MOFEPIT, MOHWE and other Project stakeholders or government officials as designated by the Client.
- (b) conduct management and other meetings with the contractor in accordance with the provisions of the contract for the hospital construction.
- (c) conduct scheduled and ad-hoc coordination meetings with the Client.

- (d) organize and conduct monthly progress meetings with the Client and World Bank representatives. Written monthly progress reports should be distributed among the participants at least three days before the meetings and should cover at least:
- (i) an executive summary not exceeding 5 pages
 - (ii) actual design and works progress against planned indicators, including progress photographs and updated cash-flow forecast
 - (iii) design and works schedule updates
 - (iv) activities to be completed in the upcoming months
 - (v) outstanding issues
 - (vi) information and data required by the Consultant and the Contractor
 - (vii) test results, quality control and quality assurance
 - (viii) material, plant and labour availability
 - (ix) variations and change orders
 - (x) risk analysis
 - (xi) remedial actions undertaken
 - (xii) weather conditions
 - (xiii) environmental and social monitoring
 - (xiv) health and safety monitoring
 - (xv) accidents on site and any other relevant details, including incident rate reporting
 - (xvi) compliance with Code of Conduct
 - (xvii) grievances submitted, including grievance redress mechanism as per the SEP and the LMP and channels used for submission, status of resolution and any pending decision to respond a grievance. SEA/SH shall be reported in a survivor centric manner.
- For urgent non-compliance issues related to accidents/GBV complaints referred to in paragraphs (xiv), (xv) and (xvi) above, the Client needs to be informed immediately. The Client is in turn required to inform the World Bank within 48 hours of the incidents.
- (e) manage and coordinate works of the Contractor and suppliers of medical and other equipment and goods on the project site.
- (f) coordinate with national regulatory agencies as required to obtain necessary permits, approvals and inspection certificates such as building and environmental permits and certificates for setting-out, foundation, structural frame, plumbing and drains, electrical works, mechanical installation, final (occupancy certificate) and other statutory inspections as may reasonably be required by the Client, the Contractor and the Physical Planning Board.
- (g) maintain a day-by-day site diary which shall record all events (including environmental and social) pertaining to the administration of the contract, requests, forms and orders given to the Contractors, and any other information which may at a later date be of assistance in resolving queries which may arise regarding design and works execution.
- (h) keep records and prepare minutes of all meetings.
- (i) maintain, as appropriate, at the site and/or at the office record copies of the works contract, engineering drawings, vendor catalogues and drawings, codes and standards, survey records, work measurements, test logs, samples, revisions, variation order information, and other related documents.
- (j) support the Client with changes in the detailed design as may be necessary.
- (k) prepare Project Completion Report on the construction contract, including defect notification period, as well as contracts for goods and non-consulting services, ESMP implementation and satisfactory resolution of all grievances.

2. Stakeholder Engagement

- (a) work with the Client and participate in stakeholder engagement in accordance with the provisions of the SEP for the Project. The Client will appoint a manager of the process who will communicate requirements, organize meetings, and request input and participation from the Consultant for the stakeholder engagement process throughout the course of this contract.
- (b) the Consultant work for stakeholder engagement will be limited to the provision of documents, drawings, and other information that the Client will use for its various stakeholder engagement communication methods and meetings. The Client will manage this stakeholder process and provide communication and meeting minutes to all participants. However, during the construction phase, the Consultant will host at least five (5) bi-annual PSC meetings with participation of other Projects stakeholder as necessary to present a construction progress report supplemented with information on transfer, supply and installation of medical, laboratory and other equipment and goods to the Project stakeholders.

3. Environmental, Social, Health and Safety Requirements

The Consultant should ensure that the Contractor delivers its ESHS obligations under the works contract. This includes, but is not limited to the following:

- (a) provide full-time resident staff services during construction phase, including occupational health and safety staff.
- (b) instruct the Contractor on environmental and social requirements and standards to be achieved before the works commencement.
- (c) review the Contractor's Environment and Social Management Plan (C-ESMP), including all updates and revisions at frequencies specified in the works contract.
- (d) review all other applicable contractor's documents related to ESHS aspects, including the health and safety manual, security management plan and GBV and SEA/SH prevention and response action plan.
- (e) review and consider the ESHS risks and impacts of any design change proposals and advise if there are implications for compliance with ESIA, ESMP, LMP, consent/permits and other relevant project requirements.
- (f) undertake, as required, audits, supervisions and/or inspections of any sites where the contractor is undertaking activities under its contract, to verify the contractor's compliance with ESHS requirements, including relevant requirements on GBV and SEA/SH; to review and monitor the risks and impacts from the construction related works, transportation and storage of the materials, occupational and community health and safety issues, pollutions from hazardous materials or other pollution such as dust, etc.; and prepare ESHS reports as part of monthly progress reports defined in paragraph E.1. (d) above.
- (g) undertake audits and inspections of contractor's accident logs, community liaison records, monitor findings and other ESHS related documentation, as necessary, to confirm the contractor's compliance with ESHS requirements, including relevant requirements on GBV and SEA/SH.
- (h) agree remedial action/s and their timeframe for implementation in the event of a noncompliance with the contractor's ESHS obligations.
- (i) ensure appropriate representation at relevant meetings, including site meetings, and progress, management and other meetings to discuss and agree appropriate actions to ensure compliance with ESHS obligations.
- (j) ensure that the contractor's actual reporting (content and timeliness) is in accordance with the contractor's contractual obligations.

- (k) review and comment, in a timely manner, the contractor's ESHS documentation, including regular reports and incident reports, regarding the accuracy and efficacy of the documentation.
- (l) liaise, as necessary, with project stakeholders to identify and discuss any actual or potential ESHS issues.
- (m) utilise, monitor and report upon the grievance redress mechanism as per the SEP and the LMP.
- (n) ensure any GBV and SH/SEA instances and complaints that come to the attention of the Consultant are registered in the grievance redress mechanism and actions are taken as specified in the LMP and the SEP maintaining confidentiality.

4. Construction Supervision and Contract Administration

During the construction, the Consultant will provide works supervision to ensure that the materials and construction works comply with the design specifications, codes and guidelines, with particular focus on the construction details which are critical to resilience and sustainability, to conduct site inspections, verify quantities, at key stages for payment milestones, to issue instructions to the contractor if remedial actions are required, and to notify the Client/Employer when statutory inspections and approvals are required.

- (a) establish a safety oversight mechanism.
- (b) answer technical inquiries and provide technical direction as required during construction.
- (c) interpret the drawings and specifications, consult with the contractor, as required, to ensure compliance with the Contract documents, Building Code(s), ESIA, ESMP, Environmental, Health, and Safety (EHS) Guidelines and the construction programme, and issue supplementary details and instructions to the contractor to perform remedial actions as required
- (d) verify insurances and securities, including their validity during the construction and defect notification periods, manage commencement of works and return of bid securities.
- (e) review Contractor's work plan, including construction schedule, comment on the procedure, methods and sequence of tasks, and manage any identified conflicts with the work plan.
- (f) conduct a thorough inspection of all aspects, including Code of Conduct (Environmental, Social, Health and Safety), of the works and require remedial actions by the contractor as needed.
- (g) supervise the works, approve materials, equipment, and workmanship to ensure that the contractor is executing the works in accordance with the requirements of the contract; communicate with the contractor and the Client/Employer regarding any deficiencies in the works and other matters of direct interest or concern.
- (h) supervise, approve and keep records of all tests of the works, materials and equipment according to the specifications; approve an appropriate testing laboratory for all tests required; and ensure that all tests are performed at laboratory(ies) acceptable to the Consultant and the Client/Employer.
- (i) provide day-to-day quality control and monitoring of the works carried out under the contract
- (j) advise the Client/Employer on the validity of changes to the works contract proposed by the contractor, including cost implications, and issue of variation orders to the contractor, support with obtaining approvals of the Central Procurement Board and the World Bank, as necessary.
- (k) supervise the contractor in all matters concerning safety and care of the works and workers and, if required, instruct the contractor to take actions in accordance with the requirements of the contract.
- (l) supervise the contractor in all public health protection matters, including ensuring the contractor complies with GOSVG requirements related to control of COVID-19.
- (m) engage the contractor on value engineering opportunities, and ensure that these will meet the same ESHS requirements as described in the project documentation.

- (n) review contractor's procurement plan.
- (o) check the contractor's statements and valuations for payment against the Contract provisions and issue payment certificates for payment by the Employer.
- (p) verify claims from the contractor, including check of all quantity measurements and calculations required for payment purposes and ensure that all measurements and calculations are carried out in a manner and at the frequencies as required in the works contract. The Consultant shall review and report on any financial claims submitted by the contractor within two (2) weeks of receipt of such claims.
- (q) assist with settling all disputes or differences, which may arise between the Client/Employer and the contractor, in a timely manner. In the case of litigation and arbitration the Consultant shall assist the Client/Employer in the preparation of the documents needed by the Client/Employer. The Consultant shall provide comprehensive report and recommendation on any claim/dispute arising out of the works contract; advise the Client/Employer throughout the mediation, adjudication, and arbitration process during the course of the contract.
- (r) participate in final inspection at the conclusion of the works contract as part of the acceptance program of the Client/Employer, including review of as-built drawings and maintenance manuals.
- (s) continue to be responsible for the supervision and inspection of the construction and completion of the works during the defect notification period as defined in the works contracts. The level of supervision shall be appropriate to the scale of the works being conducted. These inspections and supervision shall ensure that works agreed to be conducted during the defect notification period, are properly conducted and have been completed and that any failure of any part of the works has been rectified. If any defect is discovered, during this period, the Consultant shall promptly investigate the reason for it, report to the Client/Employer and take required actions to rectify the defects. The Consultant shall submit quarterly reports to the Client/Employer summarizing all the activities of the Defect Notification Period during the quarter as well as the final statement and retention.
- (t) close out contracts, including compilation of all contract-related documents and performance assessment of the contractor.

F. Contract Management – Goods and Non-Consulting Services

The Consultant is required to support the PCT, MOFEPIT, MOHWE and other Project counterparts with management of each contract listed in Annex 1 to the Terms of Reference. The support may include, but not limited to:

- (a) organize and conduct a kickoff meeting with the suppliers, PCT, MOFEPIT, MOHWE and other Project stakeholders or government officials as designated by the Client.
- (b) conduct scheduled and ad-hoc coordination meetings with the Client and the suppliers.
- (c) keep records and prepare minutes of all meetings.
- (d) verification of securities, insurances, including their validity during the contract performance and defect liability periods, and compliance with contract effectiveness conditions, return of bid securities, if any.
- (e) interpret the drawings and specifications, consult with the suppliers, as required, to ensure compliance with the conditions of contracts, ESIA, ESMP, Environmental, Health, and Safety (EHS) Guidelines and issue supplementary details and instructions to the suppliers to perform remedial actions as required.
- (f) update of contract management plans as necessary; monitoring of performance of contracts, re-assessment of risks; application of proactive approach to develop and implement risk

mitigation measures and remedial actions in case of unacceptable deviations from contract conditions; ensure continuity of services during the transition period.

- (g) in coordination with the PCT, MOFEPIT, MOHWE and other Project counterparts, review of technical documentation (designs, testing plans, training programs, operations manuals, testing plans, etc.) prepared by the suppliers and service providers, participation in commissioning and testing of equipment and other goods and advise the Client's Project Manager on acceptance of non-consulting services, equipment and other goods, technical documentation and other related services.
- (h) review all applicable contractor's documents related to ESHS aspects, including the health and safety manual, waste disposal, and GBV and SEA/SH prevention and response action plan as appropriate.
- (i) conduct a thorough inspection of all aspects, including Code of Conduct (Environmental, Social, Health and Safety) of the contracts and require remedial actions by the suppliers as needed.
- (j) advise the Client/Purchaser on the validity of changes to the contracts proposed by the suppliers and service providers, including cost implications, and prepare addenda to the contracts, support with obtaining approvals of the Central Procurement Board and the World Bank, as necessary.
- (k) engage the suppliers on value engineering opportunities, and ensure that these will meet the same ESHS requirements as described in the project documentation.
- (l) advise the PCT on certification of invoices for payment to suppliers and service providers, including verification of expenditure eligibility.
- (m) supervise disassembling and transferring the existing medical, laboratory and medical diagnostic imaging equipment and other goods from the MCMH to the AVACH and installation of the existing and new medical, laboratory and medical diagnostic imaging equipment and other goods at the AVACH.
- (n) support with testing and acceptance of medical, laboratory and medical diagnostic imaging equipment and other goods and non-consulting services.
- (o) support with coordination of input of national authorities in obtaining their approvals and permits.
- (p) support with management of warranty claims.
- (q) support with enforcement of maintenance, service level agreements and post-warranty services as necessary.
- (r) assist with settling all disputes or differences, which may arise between the Client/Purchaser and the suppliers, in a timely manner. In the case of litigation and arbitration the Consultant shall assist the Client/Purchaser in the preparation of the documents needed by the Client/Purchaser. The Consultant shall provide comprehensive report and recommendation on any claim/dispute arising out of the works contract; advise the Client/Purchaser throughout the mediation, adjudication, and arbitration process during the course of the contract.
- (s) close-out of contracts, including compilation of all contracts-related documents and assessment of suppliers and service providers' performance.

The expected level of the contract management support may vary for different procurement packages defined in Annex 1 to the Terms of Reference and depending on their complexity, Project counterparts' capacity, etc.

G. Capacity Building

The Consultant is required to develop a Capacity Building Plan for the PCT, MOFEPIT, MOHWE and other Project counterparts that is focused on capacity-building in the core activities under Component 1 such as project management, monitoring and evaluation, procurement of works and health-related

goods, works supervision, sustainability issues, environment and social standards, and contract management. This plan is expected to comprise training programs, knowledge transfer and other activities and ensure self-sustaining capacity within GOSVG.

The capacity building tasks will include, but not limited to:

- (a) support and guidance with development of the Capacity Building Plan describing capacity building goals in the Component 1 context, sequencing of tasks and deliverables, actors and their roles and responsibilities, measurement indicators, quality assurance, training, communication, monitoring and feedback arrangements.
- (b) use of different approaches to support personnel of the PCT, MOFEPIT, MOHWE and other Project counterparts with self-paced e-learning and recommendations for specialized training in project, procurement and contract management and monitoring and evaluation under World Bank financed projects.
- (c) a peer-to-peer twinning approach is expected to apply for the capacity building to cover not only traditional training methods such as off-job and in-house trainings, workshops and seminars but also provide the PCT, MOFEPIT, MOHWE and other Project counterparts with an opportunity to apply newly acquired knowledge and skills in practice under guidance of the Consultant's experts to be acting as mentors in the areas of their expertise and to be providing support and feedback during the learning process.
- (d) continuous monitoring, coordination, assessment and update of the Capacity Building Plan implementation.

VI. Deliverables

A. List of Deliverables and Milestones

Table 2. Deliverables and Milestones

Code	Deliverables	Milestones
	Support with Management of Component 1, including Monitoring and Evaluation	
D-1.1	Inception Report	within 4 weeks from the Contract Commencement Date
D-1.2	Project Implementation Plan	within 4 weeks from the Contract Commencement Date
D-1.3	Project Management Information System	within 6 weeks from the Contract Commencement Date
D-1.4	Updated Monitoring and Evaluation Arrangements	within 8 weeks from the Contract Commencement Date
D-1.5	Monitoring and Evaluation Reports against indicators for Component 1 specified in the Results Framework and Monitoring	in accordance with the agreed evaluation and monitoring arrangements
D-1.6	Guidance on Preparation of the Mid-term Review Report	to be determined

Code	Deliverables	Milestones
D-1.7	Guidance on Data Collection for the Project Completion Report	12 weeks before the Contract Completion Date
D-1.8	Monthly Progress Report	within 15 working days after the end of each calendar month
D-1.9	Draft Final Report	8 weeks before the Contract Completion Date
D-1.10	Final Report	2 weeks following the Client's Comments on the Draft Final Report
Technical Support		
D-2.1	Plan for Physical Transfer of Equipment and Assets from MCMH to AVACH	coordinated with procurement of equipment and goods for AVACH
D-2.2	Updated Market Analysis	in accordance with the updated Procurement Plan for respective procurement
D-2.3	Minutes, Reports and Other Documents related to Early Market Engagement	in accordance with the updated Procurement Plan
D-2.4	Maintenance Strategy and Plan	coordinated with procurement of construction, equipment and goods for AVACH
D-2.5	Updated List of Equipment, Goods and Non-consulting Services and Cost Estimates	in accordance with the updated Procurement Plan for respective procurement packages
D-2.6	Technical Requirements, including qualification requirements, evaluation criteria and methodology, contract management plans, updated cost estimates and cash flow forecast, for equipment, other goods and non-consulting services for each package defined in Annex 1	in accordance with the updated Procurement Plan Contract management plan to update during the procurement and contract management on an as needed basis
Procurement Support		
D-3.1	Updated PPSD in Part of Component 1	on an as-needed basis

Code	Deliverables	Milestones
D-3.2	Data and information required to record all procurement actions in STEP and updated procurement plan in part of Component 1	on an as-needed basis
D-3.3	Procurement documents for each procurement package defined in Annex 1 in accordance with the procurement method specified in the updated Procurement Plan	in accordance with the updated Procurement Plan
D-3.4	Clarifications, Addenda and Minutes for each procurement package defined in Annex 1	in accordance with the provisions of the procurement documents
D-3.5	Application, Bid and Proposal Opening Records	in accordance with the provisions of the procurement documents
D-3.6	Application, Bid and Proposal Evaluation Reports for each procurement package defined in Annex 1 in accordance with the agreed procurement methods and approaches in the updated Procurement Plan	in accordance with the provisions of the procurement documents
D-3.7	Input for debriefing and procurement – related complaints	in accordance with the provisions of the procurement documents
AVACH Construction Supervision		
D-4.1	Meeting minutes	within three working days after respective meetings
D-4.2	Monthly Progress Reports - supervision	three working days before progress meetings
D-4.3	Bi-annual PSC meetings to present construction progress reports	a week before bi-annual PSC meetings
D-4.4	Reports on Review of the Finalised Detailed Design	in accordance with the provisions of the works contract
D-4.5	Interim and Final Payment Certificate	in accordance with the provisions of the works contract
D-4.6	Contract Variations, Change Orders and Engineer's Determinations	in accordance with the provisions of the works contract
D-4.7	Taking-over and Completion Certificates	in accordance with the provisions of the works contract
D-4.8	Quarterly Supervision Reports during the Defect Notification Period	within ten (10) working days after the end of each quarter

Code	Deliverables	Milestones
D-4.9	Project Completion Report	within 4 weeks after the Defect Notification Period
D-4.10	Other Documents in accordance with the works contract	in accordance with the provisions of the works contract
Contract Management – Goods and Non-consulting Services		
D-5.1	Meeting Minutes	within 3 working days upon respective meetings
D-5.2	Reports on Review of Design for Installation of Goods	in accordance with the provisions of the goods contracts
D-5.3	Change Orders and Addenda to Contracts	on an as-needed basis
D-5.4	Reports of Testing and Acceptance of Goods and Related Services	in accordance with the provisions of the goods contracts
D-5.5	Contract Completion Reports	within 15 working days upon acceptance of goods and services
D-5.6	Other Documents in accordance with the goods contracts	in accordance with the provisions of the goods contracts
Capacity Building		
D-6.1	Capacity Building Plan	within 8 weeks from the Contract Commencement Date
D-6.2	Training materials and training activities	in accordance with the agreed Capacity Building Plan

B. Submission and Approval of Deliverables

The Consultant will report to the Authorized Representative of the Client who will be responsible for approval of invoices and coordination of review and approval of the deliverables by the relevant Project stakeholders.

All reports and deliverables shall be in English.

All deliverables, except those under the works contract, should be submitted electronically in the format(s) agreed by the Consultant and the Client. All drawings should also be submitted as paper originals. The deliverables under the works contract should be electronic and/or hard copies as stated in the works contract.

The deliverables subject to prior review by the World Bank are deemed to be accepted upon receiving no-objection of the World Bank.

VII. Team Composition and Qualification Requirements

A. Qualification Requirements for the Consultant as a Firm

The Consultant shall be a qualified firm or association of firms which possess the following experience:

- (a) experience in implementing at least two (2) projects of similar complexity for supervision of construction of hospitals and/or hotels for 300 or more rooms over the last ten (10) years
- (b) experience in supervision of works under “Red Book” contracts preferably for construction of health facilities
- (c) demonstrated familiarity with the relevant local and national laws, World Bank Environment and Social Framework and EHSGs.
- (d) experience in implementing at least two (2) projects for managing procurement and contracts for supply and installation of medical, laboratory and medical diagnostic imaging equipment over the last seven (7) years
- (e) experience working with the World Bank or other donor organisations’ procurement guidelines and/or regulations
- (f) experience in providing service for supervision of construction of hospitals and managing procurement and contracts for supply and installation of medical equipment preferably under the projects financed by the World Bank or other donor organisations is highly desirable
- (g) experience in providing similar services in small-island countries is highly desirable.

B. Team Composition

The Consultant will deploy a multidisciplinary team having an appropriate mix of international and national key and non-key experts to deliver the services outlined in the Terms of Reference. The list of key experts and their qualifications requirements are provided in the subsequent sub-section of the Terms of Reference.

C. Qualification Requirements for the Key Experts

1. General Considerations

All Key and Non-key Experts should demonstrate:

- (a) high proficiency in English with fluence in reading, preparation of reports and general writing
- (b) high proficiency in MS Office (Word, Excel, PowerPoint, MS Project etc.) and excellent web navigation skills
- (c) excellent communication and interpersonal skills and ability to work effectively with internal and external partners
- (d) experience in small island states is highly desirable.

2. Qualification Requirements and Estimated Time Input

Table 3. Qualification Requirements and Estimated Time Input

Key Experts and Expected Time Input	Education	General Experience	Specific Experience
K-1: Team Leader - 38 person-months – full time for the and construction supervision period and the pre-contract and contract periods for procurement, supply and installation of goods - 1 person-month – intermittent for the defect notification period	- at least a Master's degree in engineering, architecture, building science or related areas - professional project management certificate is an asset - registered with the relevant professional body is an asset	- minimum 20 years general experience including building design, site supervision, equipment commissioning and project handover	- at least two (2) construction projects in the health sector in capacity of project manager/team leader within the last 10 years - at least one hospital project with a minimum of 70 beds in the capacity of designer or project manager - experience in implementing infrastructure projects financed by the World Bank or/and other donor organisations is an asset - knowledge of OECS Building Code 7th Edition 2016 and PAHO SMART Facilities initiative is an asset - experience in implementation of infrastructure projects using FIDIC Conditions of Contract, Red Book is essential
K-2: Hospital Management Expert - 3 person-months – intermittent for the construction supervision period and the pre-contract and contract	- at least a Master's degree in medicine, public health, health management, health administration or related areas	- minimum 10 years of experience in managing and administering health facilities - experience in health facility planning - knowledge on green technology, disaster resilience, WHO safe hospital concept	- at least one (1) hospital construction projects, including preparation and implementation transition plan, within the last 10 years - knowledge of PAHO SMART Facilities initiative is an asset

Key Experts and Expected Time Input	Education	General Experience	Specific Experience
periods for procurement, supply and installation of goods and transition of equipment			
K-3: Civil / Resident Supervision Engineer - 36 person-months – full time for construction supervision period - 1 person-month - intermittent for the defect notification period	- at least a Bachelor's degree in civil engineering or structural engineering	- minimum 12 years of experience in design and supervision of building construction	- Design or supervision experience in at least two (2) major projects for construction of multistorey buildings or buildings of at least 2,000 sq.ft within the last 12 years - experience in implementation of infrastructure projects using FIDIC Conditions of Contract (Red Book) - experience in implementing project infrastructure projects financed by the World Bank or/and other donor organisations - knowledge of international building codes and design standards - knowledge of OECS Building Code 7th Edition 2016 and PAHO SMART Facilities initiative is an asset
K-4: Mechanical Engineer - 12 person-months – intermittent for the construction supervision and defect notification periods and the pre-	- at least a Bachelor's degree in Mechanical Engineering or related areas - preferably registered with the relevant professional body	- minimum 15 years of experience in design and supervision of mechanical works of similar size and nature - experience in implementing projects for construction of "green" medical facilities resilient to natural hazards	- at least two (2) construction projects preferably in the health sector within the last 10 years - knowledge of international building codes and design standards

Key Experts and Expected Time Input	Education	General Experience	Specific Experience
contract and contract periods for procurement, supply and installation of goods		and impacts associated with climate change	<ul style="list-style-type: none"> - knowledge of OECS Building Code 7th Edition 2016 and PAHO SMART Facilities initiative is an asset - experience in implementation of infrastructure projects using FIDIC Conditions of Contract, Red Book is essential
K-5: Electrical Engineer <ul style="list-style-type: none"> - 24 person-months – intermittent for the construction supervision and defect notification periods and the pre-contract and contract periods for procurement, supply and installation of goods 	<ul style="list-style-type: none"> - at least a Bachelor's degree in electrical engineering or related areas - preferably registered with the relevant professional body 	<ul style="list-style-type: none"> - minimum 10 years of experience in design and supervision of electrical works of similar size and nature - experience in electrification of public buildings, energy efficiency and backup power options and installations - experience in implementing projects for construction of "green" medical facilities resilient to natural hazards and impacts associated with climate change 	<ul style="list-style-type: none"> - at least two (2) construction projects preferably in the health sector within the last 10 years - knowledge of international building codes and design standards - knowledge of OECS Building Code 7th Edition 2016 and PAHO SMART Facilities initiative is an asset - experience in implementation of infrastructure projects using FIDIC Conditions of Contract, Red Book is essential
K-6: Group of Environmental and Social Experts <ul style="list-style-type: none"> - the group comprises environmental expert, health and safety expert and social expert 	-	-	-
K-6.1: Environmental Expert	<ul style="list-style-type: none"> - at least a Master's Degree in environmental science, natural 	<ul style="list-style-type: none"> - 15 years general experience with at least 5 years in leading and 	<ul style="list-style-type: none"> - at least two (2) construction projects, including treatment of

Key Experts and Expected Time Input	Education	General Experience	Specific Experience
<ul style="list-style-type: none"> - 18 person-months – half time intermittent for the construction supervision and the pre-contract and contract periods for procurement, supply and installation of goods 	<p>resources management, environmental engineering or related areas</p>	<p>conducting similar assignments in several countries and for international organizations.</p> <ul style="list-style-type: none"> - Must be familiar with WBG Safeguard Policies, WB ESF and EHSs. 	<p>hazardous materials, within the last 7 years</p> <ul style="list-style-type: none"> - experience in health care waste management is an asset - minimum 8 years of experience in leading and/or monitoring and supervising construction stage implementation of ESIA and ESMP requirements for projects - prior experience with PAHO SMART Facilities initiative is an asset
<p>K-6.2: Social Expert</p> <ul style="list-style-type: none"> - 8 person-months – intermittent for the construction supervision 	<ul style="list-style-type: none"> - at least a Master's Degree in Sociology, Social Science or related areas 	<ul style="list-style-type: none"> - minimum 10 years of experience in conducting qualitative research, social assessments (on infrastructure project), use of participatory methodologies in community development, and familiarity with monitoring and evaluation. - Must be familiar with WBG Safeguard Policies, WB ESF and Performance Standards. 	<ul style="list-style-type: none"> - at least two (2) construction projects preferably in the health sector within the last 7 years - minimum 5 years of experience monitoring and reporting on project performance, including GBV and SEA/SH, in accordance with ESIA, ESMP, LMP and SEP requirements
<p>K6.3: Occupational Health and Safety Expert</p> <ul style="list-style-type: none"> - 18 person-months – half time for construction supervision period and 	<ul style="list-style-type: none"> - Either: NEBOSH International Diploma for Occupational Health and Safety, or NVQ Level 5 Diploma in Occupational Health and Safety Practice, or similar 	<ul style="list-style-type: none"> - minimum 5 years of experience in supervising health and safety on building construction projects 	<ul style="list-style-type: none"> - knowledge of international best OHS and CHS practices and standards - experience in risk assessment and development of systems to deliver construction works safely in

Key Experts and Expected Time Input	Education	General Experience	Specific Experience
the pre-contract and contract periods for procurement, supply and installation of goods	<ul style="list-style-type: none"> - Or a NEBOSH General Certificate in Occupational Health and Safety and 10 years' experience of managing health and safety on construction sites - Member of professional body (e.g. IOSH) and completion of relevant health and safety courses (including: fall protection, confined space, injury management, WHMIS, and fit test trainer) are an advantage 		accordance with good international industry practice
K-7: Quantity Surveyor <ul style="list-style-type: none"> - 36 person-months – full time for the construction supervision and intermittent for the defect notification period 	<ul style="list-style-type: none"> - at least a Bachelor's degree in civil engineering or quantity surveying - preferably registered with the relevant professional body 	<ul style="list-style-type: none"> - 12 years general experience on building and civil engineering projects 	<ul style="list-style-type: none"> - at least two (2) large construction projects of similar size and complexity within the last 7 years - knowledge of SMM7 or later versions
K-8: Procurement and Contract Expert <ul style="list-style-type: none"> - 5 person-months – intermittent for the pre-contract period and contract periods for procurement, supply and installation of goods - 3 person-months – intermittent for the construction supervision 	<ul style="list-style-type: none"> - at least a Bachelor's degree in engineering, law, management or related areas - training on public procurement, dispute resolution and handling procurement of works and goods under World Bank and other donor-funded projects - preferably registered with the relevant professional body 	<ul style="list-style-type: none"> - minimum 10 years of experience in procurement of civil works - minimum 10 years of experience in procurement of medical equipment - minimum 10 years of experience in management of contracts for supply and installation of medical equipment - minimum 10 years of experience in management of FIDIC contracts 	<ul style="list-style-type: none"> - at least two (2) construction projects preferably in the health sector within the last 10 years - experience in implementation of infrastructure projects using FIDIC Conditions of Contract (Red Book) - experience in procurement in accordance with procurement regulations and guidelines of the World Bank or/and other donor organisations

Key Experts and Expected Time Input	Education	General Experience	Specific Experience
and management of contracts for equipment supply			- experience in dispute and litigation management
K-9: Group of Medical Equipment Experts - 2 person-months – intermittent for the pre-contract period - 2 person-months – intermittent for the management of contract for supply and installation of medical equipment	- at least a Master's degree in medical, biomedical or electronics engineering or related areas	- preferably registered with the relevant professional body - minimum 10 years of experience in development of technical specifications, testing and commissioning of medical equipment	- at least two (2) construction projects preferably in the health sector within the last 5 years - experience in procurement in accordance with procurement regulations and guidelines of the World Bank or/and other donor organisations is an asset - knowledge of PAHO SMART Facilities initiative is an asset

Mandatory Non-Key Experts and Expected Time Input	Education	General Experience	Specific Experience
N-1: Structural Engineer - 1 person-month – intermittent for the construction supervision	- at least a Master’s degree in structural engineering - preferably registered with the relevant professional body	- minimum 15 years of experience in design and supervision of structural works of similar size and nature - experience in design and construction of medical facilities resilient to natural hazards and impacts associated with climate change	- at least two (2) major projects for construction of multistorey buildings or buildings of at least 2,000 sqft within the last 10 years - knowledge of international building codes and design standards - knowledge of OECS Building Code 7th Edition 2016 and PAHO SMART Facilities initiative is an asset - experience in implementation of infrastructure projects using FIDIC Conditions of Contract, Red Book is essential
N-2: Geotechnical Engineer - 1 person-month – intermittent for the construction supervision	- at least a Master’s degree in geotechnical engineering, soil mechanics or engineering geology - preferably registered with the relevant professional body	- minimum 15 years of experience in drilling, sampling, testing and analysis of soils for building foundation design	- experience in soil foundation analysis for multistorey buildings
N-3: Clerks of Works - 36 person-months – full time for construction supervision period - 1 person-month - intermittent for the defect notification period	- A certificate or associates degree in building construction, civil engineering	- minimum 10 years of experience in building and civil works inspection.	- at least two (2) building construction projects within the last 7 years

VIII. Contract Duration

The expected duration of the assignment is 50 months. The supervision will cover a construction period of 48 months, including a 12-month defect notification period.

IX. Monitoring and Evaluation of Consultant's Performance

Consultant performance will, on a regular basis, be monitored by the PCT through directly contacting the Consultant's Team Leader and experts, reviewing deliverables, and regularly evaluating the results achieved.

The performance will be considered as having been satisfactorily if the objectives and specified results have been achieved, the activities have been carried out as required by these Terms of Reference, and the required reports have been produced on time and have been of high quality.

To facilitate monitoring and assessment of the performance of the contract and to ensure that successful outcomes are achieved, Table 4 provides key performance indicators (KPIs).

Table 4. Key Performance Indicators

Key Performance Indicators	Description
Governance and Risks	<ul style="list-style-type: none"> - timely notification on delays - issues resolved in accordance with agreed procedures - risks raised and resolved in accordance with the effective mitigation plan
Quality	<ul style="list-style-type: none"> - delivery of services in accordance with the contract provisions
Costs	<ul style="list-style-type: none"> - delivery of services within the agreed budget ensuring the best value for money - engage bidders, proposers, contractor and suppliers on value engineering opportunities
Time	<ul style="list-style-type: none"> - delivery of services in accordance with the agreed schedules such as the procurement plan, contract management plans, etc.
Relationships	<ul style="list-style-type: none"> - participation of consultant's representatives in management, progress and ad-hoc meetings - timely response to ad-hoc requests
Communication and Reporting	<ul style="list-style-type: none"> - provision of information, including responding to requests, complaints, clarifications etc. in accordance with the agreed communication strategy and - effective communication with the Project stakeholders
Sustainability	<ul style="list-style-type: none"> - adopted strategies aiming to reduce life-cycle costs - development and implementation of measures aiming to reduce negative environment and social impacts during hospital construction and operation

- compliance with ESHS requirements, including SEA/SH, GBV and gender issues

X. Resources Provided by the Client

A. Data and Documents

The Client will provide the Consultant with available data, documentation and information required for service delivery:

1. Financing Agreement - <https://projects.worldbank.org/en/projects-operations/document-detail/P176559?type=projects>
2. Project Appraisal Document - <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/107971659637418302/st-vincent-and-the-grenadines-strengthening-health-system-resilience-project>
3. World Bank Disability Note
4. Design of a Referral Hospital in Saint Vincent and the Grenadines, 2018
5. Hospital Final Detailed Design 2023.
6. Review of Infrastructure Aspects of the AVACH, Mierovich Consulting, May 18, 2022
7. Project Procurement Strategy for Development
8. Procurement Plan - <https://projects.worldbank.org/en/projects-operations/project-procurement/P176559>
9. Standard Procurement Documents - <https://www.worldbank.org/en/projects-operations/products-and-services/brief/procurement-new-framework>
10. National Health Sector Strategy
11. Draft Hospital Strategic Plan 2022
12. Environment and Social Commitment Plan
<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099420007122221196/p1765590427cb30620aa0d090e851d3e93b>
13. Environment and Social Impact Assessments (2018, 2022) and the latest update
14. Environmental and Social Management Plan
15. Stakeholder Engagement Plan - <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099420107122222868/p17655908ed0940b909e560f6e6d247f23e>
16. Labour Management Procedures
17. CERC Environment and Social Management Framework
18. Public Procurement Act 34/2018
19. National Health Care Waste Management Strategy
20. Central Water and Sewerage Authority Act of 1991
21. National Emergency and Disaster Management Act No. 15 of 2006
22. Emergency Powers Act No. 45 of 1970
23. National Disaster Response Plan, 2005
24. National Climate Change Policy, 2019
25. National One Health All Hazards Management Plan
26. Building Regulations 2008
27. Town and Country Planning Act of 1992 as amended
28. 7th Edition of the OECS Building Code, 2016 and others⁶
29. National Energy Policy, 2009

⁶ See Annex 2 for complete list of Codes.

30. Solid Waste Management Regulations of 2006
31. Environmental Health Services Act of 1991
32. Standard “Safe Working During the COVID-19 Pandemic – SVGNS 85:2020”
33. Protection of Employment Act
34. National Gender Based Violence Action Plan

B. Personnel

The Authorized Representative of the Client will facilitate the Consultant and will act as liaison with PCT, MOFEPIT, MOHWE, the World Bank and other Project stakeholders.

The Client will also provide access to personnel of public agencies and department as required for the contract purposes as well as identify staff the Consultant should mentor in particular areas of expertise.

C. Facilities

The Consultant will be responsible for office accommodation, communications, including access to the Internet, computer, printing, copying and other equipment and related costs, other equipment required to provide the services and local transportation in SVG for experts delivering services other than supervision of the works.

During supervision of the works contract, the contractor will provide the Consultant with furnished, equipped offices, communication facilities and transportation, office and site operations supplies, including fuel, access to the laboratory, field equipment and office at the laboratory for efficient operation of the Consultant’s site organization. These expenses will be included in the works contract with the contractor.

The Client will:

- (a) provide the Consultant with conference and meeting facilities.
- (b) make available its laboratory facilities and staff to the Consultant to perform tests in the laboratories and in the field within capacities of such laboratories to undertake such tests.

Annexes to the Terms of Reference

Annex 1. List of Procurement Packages to Be Implemented with Support of the Consultant

The Consultant is expected to provide the following support to the PCT, MOFEPI and MOHWE with the following procurement packages.

Procurement Package	Description	Cost Estimates, US\$ million	Expected Schedule ⁷	Technical Support	Procurement (Advisory Capacity)	Supervision or Contract Management
Construction of Arnos Vale Acute Care Hospital	Works: - construction of building - building infrastructure (power and water supply, sewerage, medical gas piping, back-up systems, etc.) - external facilities (parking lots, internal roads, etc.)	71.70	Begin: Q3'23 End: Q2'28 ⁸	?	-	?
Procurement of Medical Diagnostic Imaging Equipment	Goods: design, supply, installation, training and warranty	3.50	Begin: Q4'24 End: Q4'26	?	?	?
Medical Equipment, Instruments and Supplies	Goods: supply, installation, training and warranty	5.40	Begin: Q1'25 End: Q4'26	?	?	?
Laboratory Equipment and Supplies	Goods: supply, installation, training and warranty	1.20	Begin: Q2'25 End: Q1'27	?	?	?
Beds, Stretchers, Trolleys and Furniture	Goods: supply, installation, training and warranty	3.40	Begin: Q3'25 End: Q1'27	?	?	?
Computer and Office Equipment for AVACH	Goods: supply, installation, training and warranty	0.30	Begin: Q4'25 End: Q1'27	?	?	?

⁷ “Begin” means initiation of bidding/selection procedures. “End” means take-over/acceptance of works, goods and services.

⁸ It includes a one-year defect notification period.

Procurement Package	Description	Cost Estimates, US\$ million	Expected Schedule ⁷	Technical Support	Procurement (Advisory Capacity)	Supervision or Contract Management
Transfer of the Existing Equipment to the AVACH	Non-consulting Services: - contracts with original vendors - disassembling, transportation, installation of the existing of medical and laboratory equipment - to be determined with due consideration of the recommendations in the transition plan	TBD	Begin: TBD End: TBD	?	?	?
Facility-specific HCWM equipment	Goods: equipment for HCW management at AVACH	0.24	Begin: Q3'25 End: Q3'26	?	?	?
HCW transport vehicle	Goods: HCW transport vehicle	0.01	Begin: Q1'25 End: Q4'25	?	?	?
Procurement of Ambulances	Goods: Procurement of ambulance	0.195	Begin: Q3'24 End: Q2'25	?	?	?

Annex 2. List of Design Codes

LIST OF DESIGN CODES

The following are the used International Codes and Standards to develop the project:

Architecture & Healthcare Design:

- ☐ FGI - Guidelines for Design and Construction of Hospitals and Outpatients Facilities (Facilities Guidelines Institute) 2014
- ☐ VHA - Veterans Health Administration Guidelines. (U.S. Department of Veterans Affairs)
- ☐ CUBiC - Caribbean Uniform Building Code. (Caribbean Community Secretariat)
- ☐ NFPA - National Fire Protection Association
- ☐ ADA – Guidance on the 2010 ADA Standards for Accessible Design

Structural Engineering:

- ☐ ASCE-SEI-7-10 (American Society for Civil Engineers) for seismic structural requirements
- ☐ ACI 318-08 (American Concrete Institute)

MEP systems

- ☐ Heating, Ventilation and Air Conditioning (HVAC)
 - o ASHRAE standards (American Society of Heating, Refrigerating and Air-Conditioning Engineers)
- ☐ Plumbing & Sanitary Drainage
 - o International Plumbing Code (IPC) - International Code Council
- ☐ Gases & Medical Gases
 - o NFPA standards (National Fire Protection Association)
- ☐ Fire Suppression & Fire Detection
 - o NFPA standards (National Fire Protection Association)
- ☐ Electrical services
 - o 17th Edition IEE Wiring regulations (BS 7671)
- ☐ Communications, Security and BMS
 - o NFPA 70 - NEC (National Electrical Code)
 - o TIA standards (Telecommunications Industry Association)
 - o IEC standards (International Electrotechnical Commission)
 - o ISO standards (International Standardization Commission)
- ☐ Lighting requirements
 - o NFPA 70 - NEC (National Electrical Code)
 - o ASHRAE Std 90.1 Energy Standard for Buildings Except Low-Rise Residential Buildings
 - o IESNA standards (Illuminating Engineering Society of North America)

Building Acoustics:

- ☐ FGI 2014
- ☐ ASHRAE HVAC Applications Chapter 48 noise and vibration control
- ☐ Health and Technical Memorandum 08-01: Acoustics

Green Building Design:

- ☐ LEED 2009 for Healthcare (US Green Building Council)
- ☐ PAHO SMART Hospital Toolkit (Pan American Health Organization)

Vulnerability Reduction:

- ☐ PAHO SMART Hospital Toolkit (Pan American Health Organization)
- ☐ Design Manual for Health Services in the Caribbean with particular reference to Natural Hazards and other

Low Frequency Events

- ☐ Guidelines for the Reduction of Vulnerabilities in New Health Facilities