UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

DEVELOPMENT OF A PROJECT MANAGEMENT PLAN FOR THE CONSTRUCTION OF THE GRENADA TOURISM ENHANCEMENT PROJECT

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DEDICATION

This research project is dedicated to God Almighty my creator, my source of strength, knowledge and understanding. To my mother Joy Andall and my friends Kevin Beggs, Camillo Alexis, Ronnie Theodore, Ali Hinds and Amanda Francis who have always encouraged me throughout the development of this project when I throught it was too much to bare and kept me focused on my journey to completion.

ACKNOWLEDGMENTS

Heartfelt gratitude and thank you to Roger Valverde, my academic tutor who provided guidance throughout this process. To Kemoy Sylvester and Camillo Alexis, who edited this research paper and provided great recommdendations for improvement. To my family and friends who gave me their continued support and helped me laugh when times were difficult throughout this journey. Most of all a heartfelt thank you to Kevin Beggs who always encouraged me to undertake this Masters Degree.

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ABBREVIATIONS AND ACRONYMS

Caribbean Development Bank (CBD)

Cost Performance Index (CPI)

Final Graduation Project (FGP)

Grenada Tourism Enhancement Project (GTEP)

International Development Bank (IDB)

Ministry of Finance (MoF)

Project Coordination Unit (PCU)

Project Management Body of Knowledge Guide Fifth Edition (PMBOK 5th Edition)

Project Management Plan (PMP)

Project Management Office (PMO)

Responsibility, Accountability, Consulted and Informed Matrix (RACI)

Schedule Performance Index (SPI)

Value Added Tax (VAT)

Work Breakdown Structure (WBS)

EXECUTIVE SUMMARY (ABSTRACT)

The Grenada Tourism Enhancement Project (GTEP) is geared towards improving selected tourist attraction sites and facilitating the movement of tourists and locals in the region with the use of ferries. This research paper will focus on the restoration of Fort George as a means of enhancing the tourist experience through the preservation and restoration of a historical site.

The Project Coordination Unit (PCU) is a specialized project management unit under the Ministry of Finance (MoF), which has been established by the Government in order to fulfill Financing Agreements with donor agencies for the funding of projects.
The PCU is about to undertake the initiating and planning phases of the GTEP; however, the PCU has been faced with the challenges of: lack of procedures or guidelines to adequately define project initiating, planning, executing, monitoring & controlling and closure, which has resulted in poor scope definition, cost overruns, project delays and lack of stakeholder participation in previous projects. With the implementation of a Project Management Plan (PMP), the PCU seeks to apply best practices and principles in accordance with the Project Management Body of Knowledge (PMBOK) Guide that will guide the management processes of the GTEP.

The general objective of this project was to create a Project Management Plan for guiding the processes of initiating and planning, in accordance with the Project Management Body of Knowledge Guide 5th Edition, for the restoration of the tourist attraction site, Fort George. The specific objectives were: to develop a project charter that will provide the project manager with the information, processes, and authority to create a PMP that will be used in the initiating and planning phase of the project in accordance with the PMBOK Guide 5th Edition; to create a scope management plan to collect requirements, define the scope to ensure that it includes all the work to successfully complete the project, to create the work breakdown structure (WBS) and WBS dictionary in accordance with the PMBOK Guide 5th Edition for project planning; to develop a schedule management plan in order to define activities, sequence activities, estimate resources and durations as well as develop the project's schedule in accordance with the standards of the PMBOK Guide 5th Edition for project planning; to create a cost management plan in order to estimate cost, determine the project's budget and define the processes to manage the project budget in accordance with the PMBOK Guide 5th Edition for project planning; to develop a quality management plan in order to determine the quality requirements for the project and to ensure that the project results demonstrate compliance with those requirements in accordance with the PMBOK Guide 5th Edition for project planning; to create a human resource management plan for the purpose of providing guidance on how the project's human resources will be defined, staffed and managed effectively in accordance with standards of the PMBOK Guide 5th Edition for project planning; to develop a communication

management plan in order to ensure that project communications are structured, well organized and effective in accordance with the PMBOK Guide 5th Edition for project planning; to create a risk management plan in order to identify risks, perform risk analysis and plan risk responses to minimize their likelihood in accordance to standards of the PMBOK Guide 5th Edition for project planning; to develop a procurement management plan for the purpose of describing how the project team will acquire goods and services external to the organization in accordance with the PMBOK Guide 5th Edition for project planning and to create a stakeholder management plan in order to identify stakeholders and the management strategies required to effectively engage stakeholders in accordance with the PMBOK Guide 5 th Edition for project initiating and planning.

This research was done using various information sources (company documents, interviews & PMBOK Guide 5th Edition) and research methods (analytical, descriptive & quantitative), to analyze the current management practices of the PCU. This research was done with the aim of developing a formal plan that identifies areas for development and recommends strategies, guidelines and policies that allow for successful initiating and planning for the Restoration of Fort George, through the implementation of a Project Management Plan.

In conclusion, we have observed that the PCU faces many challenges created by the absence of an organized template for its project management processes; therefore, the development of this Project Management Plan provides a new strategy/methodology which will guide Project Managers and management team on best practices and policies to project management, thus eliminating many of the problems experienced.

It is recommended that the PCU will integrate this proposal into the initiating and planning phases of the restoration of Fort George and any future projects, creating an effective way to initiate and plan projects that are methodical,clearly defines objectives and provides clarity for stakeholder engagement. This will serve as a guide that can be replicated to suit all future projects within the unit.

1.0 INTRODUCTION

1.1. Background

The Project Coordination Unit (PCU) is a specialized project management unit under the Ministry of Finance (MoF). The PCU has been established by the Government of Grenada, in order to fulfill financing agreements with the World Bank for the funding of projects.

The primary function of the PCU is to carry out the fiduciary obligations of Government, with respect to the implementation of the projects funded by the World Bank. Over time, the portfolio of projects have increased to include projects financed by other agencies such as the Caribbean Development Bank (CBD), the European Union and most recently, the Organization for Petroleum Exporting Countries Fund for International Development.

The PCU is responsible for the following aspects of project management, including planning projects: financial management, procurement, risk management, environmental and social safeguards, contract supervision and reporting.

In addition, the unit coordinates with participating ministries and project beneficiaries in accordance with the policies and procedures of the respective funding agencies and other stakeholders.

The PCU is about to undertake the initiation and planning phase for the Grenada Tourism Enhancement Project (GTEP) funded by International Development Bank (IDB). The Grenada Tourism Enhancement Project will entail the restoration of Fort George, as a means of enhancing the tourist experience through the preservation and restoration of a historical site.

1.2. Statement of the problem

The Project Coordination Unit is faced with the challenges of limited human resources and time constraints going into the initiation and planning phase of the GTEP. With no established guide for project initiating and planning, the unit often runs into issues such as poor scope definition and cost estimates, which results in sub-projects scope of works having to be redefined as pre tender estimates do not usually stay within the confines of the budget. Cost overruns have also resulted in applications for additional funding and or projects having to be rescoped to reduce the amount of work to be undertaken, ultimately reducing the size of projects.

Projects have failed to stay on schedule and often times, applications have to be made for additional time and resources. For new projects, there are no templates to implement for repeatable work flow and it is usually time consuming to set up new management framework for all new developmental projects undertaken.

1.3. Purpose

The purpose of this study is to develop a project management plan for the PCU, in its initiating and planning phases of the Grenada Tourism Enhancement Project. After evaluating the current project management practices that exist within the PCU, areas of weaknesses have been identified. Previously, projects within the unit have been faced with the challenges of poor scope definition, failure to stay within the confines of the budget and extensive delays.

GTEP has been recently introduced to the portfolio of the PCU and the initiating and planning for the Restoration of Fort George is about to commence. This project is vital to the tourism sector of Grenada as it will directly benefit the entrepreneurs and employees of the tourism industry (hotels, travel agencies, taxi drivers, tourism guides,agricultural producers). The project is also expected to create job opportunities and other income generating activities as a result of the increased number of tourists that will visit the island.

The development of this project management plan will seek to integrate best practices in accordance to the PMBOK Guide to develop the organizational

process assets of the unit. The management plan will ensure accurate scope definition, identify the management strategies to effectively engage stakeholders and ensure projects are done in way to boost efficiency, mitigate risks and improve delivery in terms of quality, time and budget. It will aslo ensure that GTEP is completed within the framework of the scope, stipulated timeframe and budget.
This project management plan will also be used as a baseline to further guide the initiating and planning processes for future projects within the PCU and ensure that the management of projects are carried out consistently.

1.4. General objective

The general objective of this proposal is to create a Project Management Plan for guiding the processes of initiating and planning, in accordance to the Project Management Body of Knowledge Guide Fifth Edition (PMBOK), for the restoration of the tourist attraction site- Fort George.

1.5. Specific objectives

This proposal seeks:

1. to develop a project charter that will provide project manager with the information, processes, and authority to create a PMP that will be used in initiating and planning phase of the project in accordance to the PMBOK Guide 5th Edition;
2. to create a scope management plan to collect requirements, define the scope to ensure that it includes all the work to sucessfully complete the project, to create the work breakdown structure (WBS) and WBS dictionary in accordance with the PMBOK Guide 5th Edition for project planning;
3. to develop a schedule management plan in order to define activities, sequence activities, estimate resources and durations as well as develop the project's schedule in accordance with standards of the PMBOK Guide 5th Edition for project planning;

4. to create a cost management plan in order to estimate cost, determine the project's budget and define the processes to manage the project budget in accordance with the PMBOK Guide 5th Edition for project planning;
5. to develop a quality management plan in order to determine the quality requirements for the project and to ensure that the project results demonstrate compliance with those requirements in accordance with the PMBOK Guide 5th Edition for project planning;
6. to create a human resource management plan for the purpose of providing guidance on how the project's human resources will be defined, staffed and managed effectively in accordance with standards of the PMBOK Guide 5th Edition for project planning;
7. to develop a communication management plan in order to ensure that project communications are structured, well organized and effective in accordance with the PMBOK Guide 5th Edition for project planning;
8. to create a risk management plan in order to identify risks, perform risk analysis and plan risk responses to minimize their likelihood in accordance with standards of the PMBOK Guide 5th Edition for project planning;
9. to develop a procurement management plan for the purpose of describing how the project team will acquire goods and services external to the organization in accordance with the PMBOK Guide 5th Edition for project planning;
10. to create a stakeholder management plan in order to identify stakeholders and the management strategies required to effectively engage stakeholders in accordance with the PMBOK Guide 5th Edition for project initiating and planning.

2.0 THEORETICAL FRAMEWORK

2.1 Company/Enterprise framework

The PCU has a hierarchical organizational structure where people are grouped according to their area of expertise. It is set up as a project management office (PMO) within the (MoF) to define and maintain standards and to uphold fiduciary obligations by Government for donor funded projects.

The PCU has been setup to fulfil financing agreements with donor agencies and to ensure that there is standardization and monitoring in the execution and delivery of these projects. It is a source of guidance on best practices in managing projects particularly to keep them within budget (Project Coordination Unit, 2015).

2.1.1 Company/Enterprise background

The PCU is a project management unit within the MoF established by the Government of Grenada whose responsibility is to account for all funding from Donor Agencies to Government.

The PCU's mandate is derived from specific provisions from various financing agreements with Government and their donor agencies. According to Financing Agreements (FAs), the FAs stipulates how the PCU is setup, how it functions and its responsibilities in the execution of these donor funded projects.

The unit currently manages ten projects which are executed through various ministries, government departments and quasi-government institutions. Projects that are funded by the World Bank account for 80% and projects funded by other agencies account for the other 20% (Project Coordination Unit, 2015).

2.1.2 Mission and vision statements

MISSION STATEMENT

The mission is to effectively plan, generate, allocate and account for resources through the implementation of fiscal and economic policies and the facilitation of social and environmental policies in co-operation with other agencies thereby

providing and enabling sustainable growth and development (Project Coordination Unit, 2015).

VISION STATEMENT

The vision entails efficient and effective delivery of finance and economic services to the national, regional and international communities, through strong leadership role in planning and management of the available resources (Project Coordination Unit, 2015).

With the standards and guidelines stipulated in the FGP, in its execution the aim is to meet and exceed expectations stated in the mission and vision statements by producing a PMP that seeks to implement elements such as planning, effective delivery and proper management of resources.

2.1.3 Organizational structure

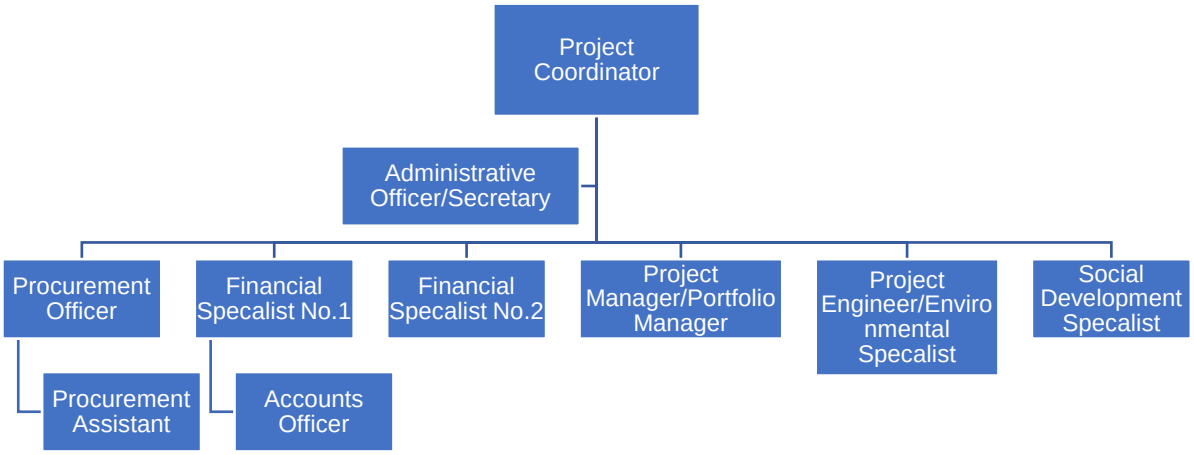


Figure 1 Project Coordination Unit Organizational Structure (Source : Project Coordination Unit, 2015, p15)

The organizational chart above presented in Figure 1 shows that the PCU is organized using a functional organizational structure, which allows the PCU to

operate in an effective manner. According to the Project Management Institute (2013), a functional organizational structure is a hierarchical organizational structure in which people are grouped according to their area of specialization and each employee has one clear superior.

The PCU has a small team which is comprised of the project coordinator and nine other members of staff. The project coordinator is the head of the department and stands at the top of the PCU's organizational chart. Her responsibility is to oversee all operations within the unit, coordinate activities and resources and to communicate information to the project team.

The rest of the project team consists of a procurement officer and assistant, two financial specialists and an accounts officer, the project engineer, social development specialist and project manager.

The project manager is responsible for the day to day management and coordination of activities related to the management of projects. Although all of the departments will be responsible for the execution of the PMP for the GTEP, it will be added to the project manager's portfolio. Staffing requirements of the PCU may vary on the basis of the portfolio of projects.

2.1.4 Products offered

According to the Project Coordination Unit (2015), the PCU is responsible for all fiduciary responsibilities in its operations. This includes the following services consistent with good project management practices:

1) Feasibility studies
2) Project writing
3) Procurement
4) Financial management
5) Disbursement of funds
6) Project reporting on procurement and financial management
7) Quality assurance
8) Environmental Management Plans and Social Safeguards Plans

With the development of this FGP and the implementation of the PMP, the PCU aims to be more effective and efficient in its initiating and planning and ultimately, the execution, monitoring & controlling and closure of its projects and associated services.

2.2 Project Management concepts

2.2.1 Project

A project can be defined as “a temporary endeavour undertaken to create a unique product, service, or result”, (Project Management Institute, 2013. p.3). Projects usually aim to achieve goals and objectives within the confines of a specific timeframe and budget. The duration of a project is usually determined by the general scope of the project and may be short term or long term, and endeavours to satisfy the needs of the client or organization (Project Management Institute, 2013). In addition, the Project Management Institute (2013) further states that “projects can also have social, economic, and environmental impacts that far outlive the projects themselves” and terminates when the specific objectives are achieved.

The PCU is undertaking the Rehabilitation of the Fort George historic site under the Grenada Tourism Enhancement Project. This project is expected to last for a duration of one (1) year; however, in its completion, the project is expected to be of significant economic importance as it will increase opportunities for tourist arrivals and revenue generation.

2.2.2 Project management

According to the Project Management Institute (2013), project management is the “application of knowledge, skills, tools, and techniques to project activities to meet project requirements” (p.5). Project management is accomplished through the application and integration of 47 project management processes that are

categorized into five process groups of initiating, planning, executing, monitoring & controlling and closing.

The Project Management Institute (2013) further states that project management activities involve identifying requirements and, addressing the needs, concerns and expectations of the stakeholders in planning and executing the project. It also involves setting up, maintaining and carrying out communications among stakeholders, managing stakeholders towards meeting project requirements, creating project deliverables, and balancing the project constraints.

The FGP is the development of a PMP to guide the processes of initiating and planning for the Grenada Tourism Enhancement Project. The project management guidelines and principles, in-cooperated in the completion of the FGP in its application, are geared to complete the initiating and planning phases that would in turn create a project that is of high quality, cost efficient, kept within the scope as well as inform stakeholders of the expected outcomes and best practices.

2.2.3 Project life cycle

A project life cycle can be defined as “a series of phases that a project passes through from its initiating to its closure” (Project Management Institute, 2013. p.38). As indicated in figure 2, the project to be undertaken by the PCU (GTEP), follows the generic life cycle of starting the project (start), organizing and preparing the (plan), carrying out the project work (execute) and closing the project (close). These phases are usually progressive and provide a foundation for the other phases, they are interrelated. This cycle is usually referred to when communicating information throughout the hierarchy of an organization.

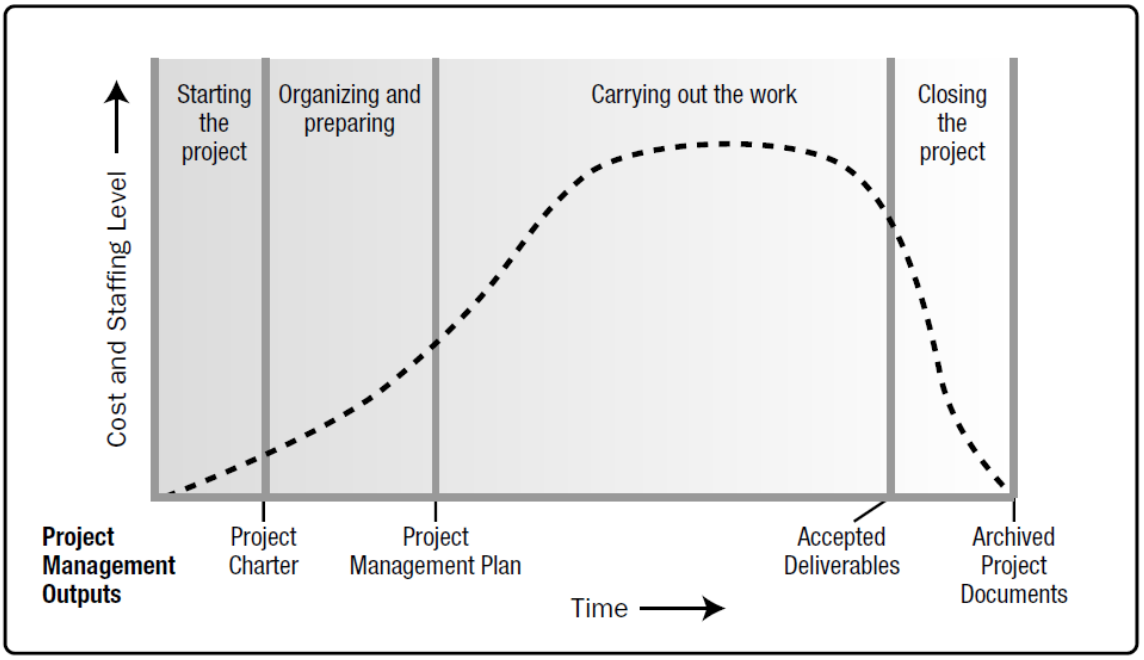


Figure 2 Project Life Cycle (Source : Project Management Institute, 2013, p.39)

2.2.4 Project management processes

According to the Project Management Institute (2013), a process is a "set of interrelated actions and activities performed to create a pre-specified product, service, or result". Each process is characterized by its impact, tools and techniques that can be applied, and resulting outputs. Project management processes ensure the effective flow of the project throughout its lifecycle and are grouped into five categories known as Project Management Process Groups.

The FGP focuses on two of the project management processes, which are the initiating and planning process groups. In the initiating process, scope will be defined, stakeholders will be identified and the necessary permits and authorization will be obtained. In the planning process group, the scope will be finalized, the strategies and tactics will be determined and the course of action to successfully complete the project will be determined. Throughout the life cycle of the planning process, changes may occur requiring the review of the planning and initiating processes.

After these process groups are completed, in the executing process group, processes will be performed to complete the work defined in the PMP to satisfy the

project specifications. In the monitoring and controlling process group, processes will be performed to track, review and regulate the performance of the project and in the closing process group, processes will be performed to finalize all activities across all process groups to formally close the project (Project Management Institute, 2013).

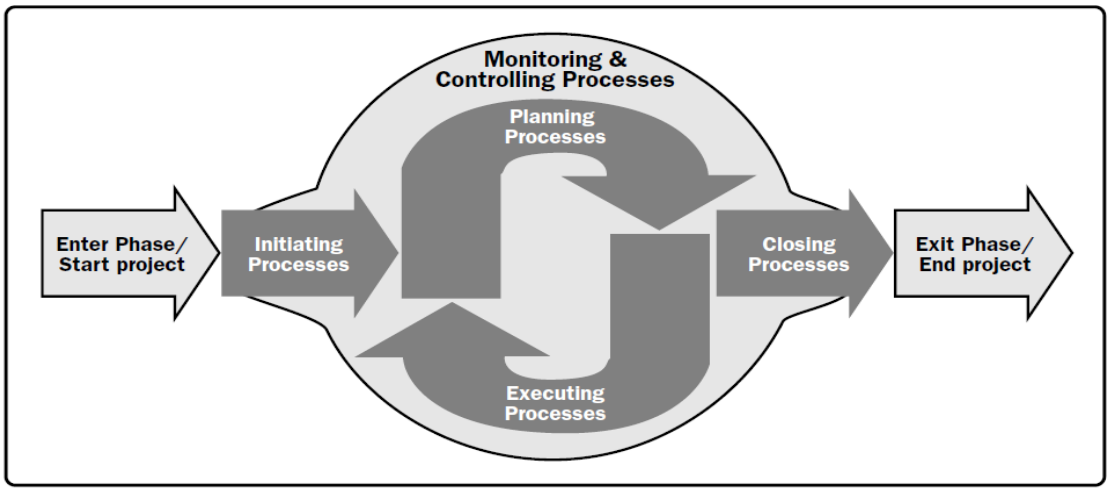


Figure 3 Project Management Processes (Source : Project Management Institute, 2013, p 50)

2.2.5 Project management knowledge areas

According to the Project Management Institute (2013), a knowledge area represents “a complete set of concepts, terms, and activities that make up a professional field, project management field or area of specialization”. The knowledge areas that are applicable to the development of this FGP are project integration management, project scope management, project time management, project cost management, project quality management, project human resource management, project communication management, project risk management, project procurement management and project stakeholder management.

The FGP, in its development, will include the following knowledge areas which will assist in achieving the desired outcomes of PMP which are to create a project that is of a high quality, cost efficient and kept within the scope as well as to sensitize

stakeholders of the expected outcomes and best practices. These knowledge areas are: -

1. Project integration management which includes the “processes and activities to identify, define, combine, unify and coordinate the various processes and project management activities with the project management processes groups” (Project Management Institute, 2013, p.63);
2. Project scope management which includes the “processes required to ensure that the project includes all the work required and only the work required, to compete the project successfully” (Project Management Institute, 2013, p.105);
3. Project time management which includes the “processes required to manage the timely completion of the project” (Project Management Institute, 2013, p.141);
4. Project cost management which includes the “processes involved in the planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget” (Project Management Institute, 2013, p.193);
5. Project quality management which includes the “processes and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken” (Project Management Institute, 2013, p.227);
6. Project human resource management which includes the “processes that organize, manage, and lead the project team” (Project Management Institute, 2013, p.255);
7. Project communications management which includes the “the processes that are required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and the ultimate disposition of project information” (Project Management Institute, 2013, p.287).

8. Project risk management which includes the “processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project’’ (Project Management Institute, 2013, p.309).
9. Project procurement management which includes the “processes necessary to purchase or acquire products, services, or results needed from outside the project team” (Project Management Institute, 2013, p.355).
10. Project stakeholder management which includes the “processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution”, (Project Management Institute, 2013, p.391).

2.3 Other applicable theory/concepts related to the project topic and context

2.3.1 Financing agreement is defined as “a statement outlining the terms of credit between a lender and borrower”, (Project Coordination Unit, 2015).

2.3.2 Fiduciary is an individual or organization in whom another has placed the utmost trust and confidence to manage and protect property or money, (“What is fiduciary,” n.d).

2.3.3 Project management office is defined as “an organizational structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques”, (Project Management Institute, 2013, p.554).

2.3.4 Project Management Plan is defined as “a document that describes how the project will be executed monitored, and controlled”, (Project Management Institute, 2013, p.554).

2.3.5 Stakeholders is defined as “an individual, group, or organization who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project”, (Project Management Institute, 2013, p.563).

2.3.6 Scope is defined as “the sum of the products, services, and results to be provided as a project”, (Project Management Institute, 2013, p.562).

2.3.7 Work break down structure can be defined as a “hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables”, (Project Management Institute, 2013, p.567).

3.0 METHODOLOGICAL FRAMEWORK

3.1 Information sources

An information source is a person, thing or place from which information (knowledge) is obtained. It is the means by which a person is informed about something or knowledge is availed to someone, a group or an organization. Information sources can range from observations, speeches, documents and pictures and can be in print, nonprint and electronic format, ("Module One – Information sources," n.d.). For the development of this FGP, information sources will be company documents.

3.1.1 Primary sources

Primary information sources are original materials on which other research studies are based. Primary information sources present first-hand accounts and information relevant to an event. The information has not been interpreted or condensed by other writers as it is in its original form ("Module One –Information sources," n.d.).

Primary sources of information are eye witness accounts, financial reports, government document, letters, photographs, interviews (telephone, email), video and audio recordings and websites ("Module One –Information sources," n.d).

For the development of this FGP, primary sources of information will be company documents, interviews, PMBOK guide, published books, government publications and technical Reports.

3.1.2 Secondary sources

A secondary source of information is one that was "created by someone who did not have firsthand experience or did not participate in the events being researched", ("Module One –Information sources," n.d). They are general accounts and describe, analyze, interpret, evaluate and discuss evidence from primary sources. Secondary information sources are textbooks, articles,

bibliographies, commentaries, criticisms, dictionaries and websites (“Module One – Information sources,” n.d). Secondary sources of information used in this FGP are textbooks, articles, dictionaries and websites.

Chart 1 Information sources (Source : N. Andall, Author of Study)

Objectives	Information sources	
	Primary	**Secondary**
1. To develop a project charter that will provide project manager with the information, processes, and authority to create a PMP that will be used in initiating and planning phase of the project in accordance to the PMBOK Guide 5th Edition.	Company documents, PMBOK Guide, Published Books, Government Publications, Technical Reports and interviews.	Text books, articles, websites and dictionaries.
2. To create a scope management plan to collect requirements, define the scope to ensure that it includes all the work to sucessfully complete the project, to create the work breakdown structure (WBS) and WBS dictionary in accordance to the PMBOK Guide 5th Edition for project planning.	Company documents, PMBOK Guide, Published Books, Government Publications, Technical Reports and interviews.	Text books, articles, websites and dictionaries.
3. To develop a schedule management plan in order to define activities, sequence activities, estimate resources and durations as well as develop the project's schedule in accordance to standards of the PMBOK Guide 5th Edition for project planning.	Company documents, PMBOK Guide, Published Books, Government Publications, Technical Reports and interviews.	Text books, articles, websites and dictionaries.
4. To create a cost management plan in order to estimate cost, determine the project's budget and define the processes to manage the project budget in accordance to the PMBOK Guide 5th Edition for project planning.	Company documents, PMBOK Guide, Published Books, Government Publications, Technical Reports and interviews.	Text books, articles, websites and dictionaries.
5. To develop a quality management plan in order to determine the quality requirements for the project and to ensure that the project results demonstrate complaince with those requirements in accordance to the	Company documents, PMBOK Guide, Published Books, Government Publications, Technical Reports and interviews.	Text books, articles, websites and dictionaries.

Objectives	Information sources	
	Primary	**Secondary**
PMBOK Guide 5th Edition for project planning.		
6. To create a human resource management plan for the purpose of providing guidance on how the project's human resources will be defined, staffed and managed effectively in accordance to standards of the PMBOK Guide 5th Edition for project planning.	Company documents, PMBOK Guide, Published Books, Government Publications, Technical Reports and interviews.	Text books, articles, websites and dictionaries.
7. To develop a communication management plan in order to ensure that project communications are structured, well organized and effective in accordance the PMBOK Guide 5th Edition for project planning.	Company documents, PMBOK Guide, Published Books, Government Publications, Technical Reports and interviews.	Text books, articles, websites and dictionaries.
8. To create a risk management plan in order to identify risks, perform risk analysis and plan risk responses to minimize their likelihood in accordance to standards of the PMBOK Guide 5th Edition for project planning.	Company documents, PMBOK Guide, Published Books, Government Publications, Technical Reports and interviews.	Text books, articles, websites and dictionaries.
9. To develop a procurement management plan for the purpose of describing how the project team will acquire goods and services external to the organization in accordance the PMBOK Guide 5th Edition for project planning.	Company documents, PMBOK Guide, Published Books, Government Publications, Technical Reports and interviews.	Text books, articles, websites and dictionaries.
10. To create a stakeholder management plan in order to identify stakeholders and the management strategies required to effectively engage stakeholders in accordance the PMBOK Guide 5th Edition for project initiating and planning.	Company documents, PMBOK Guide, Published Books, Government Publications, Technical Reports and interviews.	Text books, articles, websites and dictionaries.

3.2 Research methods

Research methods can be defined as “the theoretical analysis of procedures applied to a field of study”, (Kenya Project Organization 2012). Methodology involves the procedures of describing and explaining phenomena to solve a problem.

It is the how, the process or technique of conducting research and it offers theoretical support for understanding which procedure can be applied to a specific case, (Kenya Project Organization, 2012).

3.2.1 Analytical Research

Analytical research method is a “specific type of research that involves critical thinking skills and the evaluation of facts and information relative to the research being conducted”, (“What is analytical research,” n.d).

3.2.2 Quantitative research

Quantitative research is “used to quantify the problem by way of generating numerical data that can be transformed into usable statistics”. Common methods include various forms of survey, online polls and systematic observations (Susan Wyse, 2011).

3.2.3 Descriptive Research

Descriptive research is used to describe characteristics of a phenomenon being studied. It is an attempt to determine, describe or identify what is,(“Descriptive Research”, n.d).

Chart 2 Research methods (Source: N. Andall, Author of Study)

Objectives	Analytical Research	Quantitative Research	Descriptive Research
1. To develop a project charter that will provide project manager with the information, processes, and authority to create a PMP that will be used in initiating and planning phase of the project in accordance to the PMBOK Guide 5th Edition.	From the information gathered, facts and data will be examined and applied in a systematic way in order to create a project charter.		The creation of the project charter through defining and understanding its components, functions and responsibilities.
2. To create a scope management plan to collect requirements, define the scope to ensure that it includes all the work to sucessfully complete the project, to create the work breakdown structure (WBS) and WBS dictionary in accordance to the PMBOK Guide 5th Edition for project planning.	From the information gathered, facts and data will be examined and applied in a systematic way in order to create a scope management plan.		The creation of the scope management plan through defining and understanding its components, functions and responsibilities.
3. To develop a schedule management plan in order to define activities, sequence activities, estimate resources and durations as well as develop the project's schedule in accordance to standards of the PMBOK Guide 5th Edition for project planning.	From the information gathered, facts and data will be examined and applied in a systematic way in order to create a schedule management plan.		The creation of the schedule management plan through defining and understanding its components, functions and responsibilities.
4. To create a cost management plan in order to estimate cost, determine the project's budget and define the processes to manage the project budget in accordance to the PMBOK Guide 5th Edition for project planning.	From the information gathered, facts and data will be examined and applied in a systematic way in order to create a cost management plan.		The creation of the cost management plan through defining and understanding its components, functions and responsibilities.
5. To develop a quality management plan in order to determine the quality requirements for the project and to ensure that the project results demonstrate complaince with those requirements in accordance to the PMBOK Guide 5th Edition for project	From the information gathered, facts and data will be examined and applied in a systematic way in order to create a quality management plan.		The creation of the quality management plan through defining and understanding its components, functions and responsibilities.

Objectives	Analytical Research	Quantitative Research	Descriptive Research
planning.			
6. To create a human resource management plan for the purpose of providing guidance on how the project's human resources will be defined, staffed and managed effectively in accordance to standards of the PMBOK Guide 5th Edition for project planning.	From the information gathered, facts and data will be examined and applied in a systematic way in order to create a human resource management plan.		The creation of the human resource management plan through defining and understanding its components, functions and responsibilities.
7. To develop a communication management plan in order to ensure that project communications are structured, well organized and effective in accordance the PMBOK Guide 5th Edition for project planning.	From the information gathered, facts and data will be examined and applied in a systematic way in order to create a communication management plan.		The creation of the communications management plan through defining and understanding its components, functions and responsibilities.
8. To create a risk management plan in order to identify risks, perform risk analysis and plan risk responses to minimize their likelihood in accordance to standards of the PMBOK Guide 5th Edition for project planning.	From the information gathered, facts and data will be examined and applied in a systematic way in order to create risk management plan.	Through the objective analysis of statistical information and observation, the best practices and principles will be determined and applied in the creation of a risk management plan.	The creation of the risk management plan through defining and understanding its components, functions and responsibilities.
9. To develop a procurement management plan for the purpose of describing how the project team will acquire goods and services external to the organization in accordance the PMBOK Guide 5th Edition for project planning.	From the information gathered, facts and data will be examined and applied in a systematic way in order to create a procurement management plan.		The creation of the procurement management plan through defining and understanding its functions and responsibilities.

Objectives			
	Analytical Research	**Quantitative Research**	**Descriptive Research**
10. To create a stakeholder management plan in order to identify stakeholders and the management strategies required to effectively engage stakeholders in accordance the PMBOK Guide 5th Edition for project initiating and planning	From the information gathered, facts and data will be examined and applied in a systematic way in order to create a stakeholder management plan.		The creation of the stakeholder management plan through defining and understanding its functions and responsibilities.

3.3 Tools

A tool can be defined as “something tangible, such as a template or software program, used in performing an activity to produce a product or result”, (Project Management Institute, 2013, p.565). The tools that are used in the development of this FGP are summarized in Chart 3 based on the respective objectives for clarity.

Chart 3 Tools (Source: N. Andall, Author of Study)

Objectives	Tools
1. To develop a project charter that will provide project manager with the information, processes, and authority to create a PMP that will be used in initiating and planning phase of the project in accordance to the PMBOK Guide 5th Edition.	a. Expert judgement, Facilitation techniques, Project Charter template and Project Management Plan template.
2. To create a scope management plan to collect requirements, define the scope to ensure that it includes all the work to sucessfully complete the project, to create the work breakdown structure (WBS) and WBS dictionary in accordance to the PMBOK Guide 5th Edition for project planning.	a. Plan Scope Management process tools: - expert judgement and meetings b. Collect Requirements process tools: - Interviews, focus groups, group decision making techniques and document analysis c. Define Scope process tools: - expert judgement and facilitated workshops d. Create WBS process tools: - Decomposition and expert judgement e. Other tools: - Schedule Pro – WBS tool and Microsoft Word
3. To develop a schedule management plan in order to define activities, sequence activities, estimate resources and durations as well as develop the project’s schedule in accordance to standards of the PMBOK Guide 5th Edition for project planning.	a. Plan Schedule Management process tools: - Expert judgement, meetings and analytical techniques b. Define activities process tools: - Decomposition, expert judgement and rolling wave planning c. Sequence activities process tools: - Leads and lags, precedence diagramming method and dependency determination d. Estimate activity resources process tools: - Expert judgment and bottom up estimating e. Estimate activity durations process tools: -Expert judgement, analogous estimating and reserve analysis f. Development schedule process tools: - Critical path method and schedule compression g. Other tools: - Microsoft Project
4. To create a cost management plan in order to estimate cost, determine the project’s budget and define the processes to manage the project budget in accordance to the PMBOK Guide 5th Edition for project planning.	a. Plan Cost Management process tools: - Expert judgement, analytical techniques and meetings b. Estimate costs process tools: - Expert judgement, bottom up estimating and reserve analysis c. Determine Budget process tools: - Cost aggregation, reserve analysis and expert judgement
5. To develop a quality management plan in order to determine the quality requirements for	a. Plan Quality Management process tools:- Meetings, Basic Quality tools – Checksheets

Objectives	Tools
the project and to ensure that the project results demonstrate complaince with those requirements in accordance to the PMBOK Guide 5th Edition for project planning.	
6. To create a human resource management plan for the purpose of providing guidance on how the project's human resources will be defined, staffed and managed effectively in accordance to standards of the PMBOK Guide 5th Edition for project planning.	a. Plan Human Resource Management process tools: - Organization charts and position description, expert judgement and meeting
7. To develop a communication management plan in order to ensure that project communications are structured, well organized and effective in accordance the PMBOK Guide 5th Edition for project planning.	a. Plan Communication Management process tools: - Meeting, communications requirement analysis, communication technology and communication methods
8. To create a risk management plan in order to identify risks, perform risk analysis and plan risk responses to minimize their likelihood in accordance to standards of the PMBOK Guide 5th Edition for project planning.	a. Plan Risk Management process tools: - Analytical techniques, expert judgement and meetings b. Identify Risks process tools: - Expert judgement and documentation reviews c. Perform Qualitative Risk Analysis process tools: - Expert judgement and probability and impact matrix d. Plan Risk Responses process tools: - Strategies for negative and positive risks or opportunities and expert judgement
9. To develop a procurement management plan for the purpose of describing how the project team will acquire goods and services external to the organization in accordance the PMBOK Guide 5th Edition for project planning.	a. Plan Procurement Management process tools: - Expert decision and bank requirements and policies stipulated in financing agreements
10. To create a stakeholder management plan in order to identify stakeholders and the management strategies required to effectively engage stakeholders in accordance the PMBOK Guide 5th Edition for project initiating and planning.	a. Identify Stakeholder process tools:- Stakeholder analysis, expert judgment and meetings b. Plan Stakeholder Management process tools:- Expert judgement, meetings and analytical techniques

3.4 Assumptions and constraints

Assumptions

An assumption can be defined as “a factor in the planning process that is considered to be true, real, or certain, without proof or demonstration”, (Project Management Institute, 2013, p.529). The assumptions considered for the development of this FGP have been indicated (in Chart 4 below) for clarity based on the respective objectives.

Constraints

A constraint is defined as “a limiting factor that affects the execution of a project, program, portfolio or process”, (Project Management Institute, 2013, p.533). The constraints considered for this project have been indicated (in Chart 4 below) for clarity based on the respective objectives.

Chart 4 Assumptions and constraints (Source: N. Andall, Author of Study)

Objectives	Assumptions	Constraints
1. To develop a project charter that will provide project manager with the information, processes, and authority to create a PMP that will be used in initiating and planning phase of the project in accordance to the PMBOK Guide 5th Edition.	a. The project charter will be created before all subsidiary management plans.	a. Insufficient time allotted to prepare project charter
2. To create a scope management plan to collect requirements, define the scope to ensure that it includes all the work to sucessfully complete the project, to create the work breakdown structure (WBS) and WBS dictionary in accordance to the PMBOK Guide 5th Edition for project planning.	a. All relevant information and supporting documents will be made available by the project sponsor. b. All stakeholders will be willing participants in the process. c. All stakeholders will understand and approve the project scope.	a. Delays experienced due to lengthy stakeholders and expert engagement b. The Physical Planning Unit going beyond the stipulated timeframe to review and approve project scope
3. To develop a schedule management plan in order to define activities, sequence activities, estimate resources and durations as well as develop the project's schedule in accordance to standards of the PMBOK Guide 5th Edition for project planning.	a. The PCU will provide access to all software and supporting documentation required to develop the schedule.	a. Stakeholders not providing data and feedback within a set timeframe
4. To create a cost management plan in order to estimate cost, determine the project's budget and define the processes to manage the project budget in accordance to the PMBOK Guide 5th Edition for project planning.	a. The PCU will adequately manage the disbursements of funds for the project.	a. Lack of time and resources to complete a detailed budget b. Changes in prices of materials
5. To develop a quality management plan in order to determine the quality requirements for the project and to ensure that the project results demonstrate complaince with those requirements in accordance to the PMBOK Guide 5th Edition for project	a. The PCU will provide clear guidance with regards to the expectations on quality policies.	b. Stakeholder may have different expectations on quality requirement

Objectives	Assumptions	Constraints
planning.		
6. To create a human resource management plan for the purpose of providing guidance on how the project's human resources will be defined, staffed and managed effectively in accordance to standards of the PMBOK Guide 5th Edition for project planning.	a. The organizational structure and existing human resources of the PCU will be sufficient to implement this project. b. All roles and responsibilities will be clearly defined.	a. Not all human resources may be available due to other assignments.
7. To develop a communication management plan in order to ensure that project communications are structured, well organized and effective in accordance the PMBOK Guide 5th Edition for project planning.	a. Information communicated will be clear and concise. b. Information will be communicated in a timely manner. c. Stakeholders will act upon and provide feedback in a timely manner.	a. Breakdown in communication channels
8. To create a risk management plan in order to identify risks, perform risk analysis and plan risk responses to minimize their likelihood in accordance to standards of the PMBOK Guide 5th Edition for project planning.	a. A contingency reserve will be made for all known risks that cannot be proactively managed. b. A management reserve will be made for unknown risks that cannot be proactively managed. c. There is adequate information to identify most risks.	a. Risks that are not identified early may create a break down in the management structure.
9. To develop a procurement management plan for the purpose of describing how the project team will acquire goods and services external to the organization in accordance the PMBOK Guide 5th Edition for project planning.	a. The procurement unit will have a list of engineering consultants and Contractors. b. The PCU will control all contracts issued from external companies.	a. Specialized Consultants may not be available locally. b. Contractors using international suppliers may be delayed.
10. To create a stakeholder management plan in order to identify stakeholders and the management strategies required to effectively engage stakeholders in accordance the PMBOK Guide 5th Edition for project initiating and planning	a. All stakeholders will be identified. b. The level of interest of all stakeholders will be identified. c. It is assumed that all stakeholders will provide timely feedback.	a. The requirements of stakeholders may change. b. Stakeholders may be unavailable at times. c. Level of interest in project may change.

3.5 Deliverables

A deliverable is defined as a “unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project (Project Management Institute, 2013, p.537). The respective deliverables to be developed for this FGP have been indicated in Chart 5 below.

Chart 5 Deliverables (Source : N. Andall, Author of Study)

Objectives	Deliverables
1. To develop a project charter that will provide project manager with the information, processes, and authority to create a PMP that will be used in initiating and planning phase of the project in accordance to the PMBOK Guide 5th Edition.	Project Charter
2. To create a scope management plan to collect requirements, define the scope to ensure that it includes all the work to sucessfully complete the project, to create the work breakdown structure (WBS) and WBS dictionary in accordance to the PMBOK Guide 5th Edition for project planning.	Scope Management Plan
3. To develop a schedule management plan in order to define activities, sequence activities, estimate resources and durations as well as develop the project’s schedule in accordance to standards of the PMBOK Guide 5th Edition for project planning.	Schedule Management Plan, Activity List & Attributes, Project Milestones, Resource Assignment, Schedule Network Diagram, Activity Duration, Project Schedule
4. To create a cost management plan in order to estimate cost, determine the project’s budget and define the processes to manage the project budget in accordance to the PMBOK Guide 5th Edition for project planning.	Cost Management Plan, Activity Cost Estimate, Cose Baseline, Monthly Expenditure S-Curve
5. To develop a quality management plan in order to determine the quality requirements for the project and to ensure that the project results demonstrate complaince with those requirements in accordance to the PMBOK Guide 5th Edition for project planning.	Quality Management Plan
6. To create a human resource management plan for the purpose of providing guidance on how the project’s human resources will be defined, staffed and managed effectively in accordance to standards of the PMBOK Guide 5th Edition for project planning.	Human Resource Management Plan
7. To develop a communication management plan in order to ensure that project communications are structured, well organized and effective in accordance the PMBOK Guide 5th Edition for project planning.	Communication Management Plan, Communication Matrix
8. To create a risk management plan in order to identify risks, perform risk analysis and plan risk responses to minimize their likelihood in accordance to standards of the PMBOK Guide 5th Edition for project planning.	Risk Management Plan, Risk Register
9. To develop a procurement management plan for the purpose of describing how the project team will acquire goods and services external to the organization in accordance the PMBOK Guide 5th Edition for project planning.	Procurement Management Plan
10. To create a stakeholder management plan in order to identify stakeholders and the management strategies required to effectively engage stakeholders in accordance the PMBOK Guide 5th Edition for project initiating and planning.	Stakeholder Management Plan, Stakeholder Register

4.0 RESULTS

4.1 Project Integration Management

According to the Project Management Institute (2013), “Project Integration Management includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the Project Management Process Groups”, (Project Management Institute, 2013, p.63).

In order to ensure that all elements of the project are properly coordinated, the initiating process group was explored which is defined as “those processes performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase”, (Project Management Institute, 2013, p.418). The project chárter was the first component of the initiating process group that was developed for this FGP which was then followed by stakeholder identification.

4.1.1 Initiating Process Group - Develop Project Charter

Developing the Project Charter falls under the initiating process group of project integration management and according to the Project Management Institute (2013), it is the “process of developing a document that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to the project activities”, (Project Management Institute, 2013, p.63). In order to develop the Project Charter for the Construction of the Grenada Tourism Enhancement Project, the project’s Apprasial Document/Agreement from the International Development Bank was explored to source the project’s statement of work and business case, and an interveiw was held with the Project Coordinator of the PCU who has been an integral part in developing the apprasial document and sourcing funding for the project. Through the use of analytical and descriptive research, the information, facts and data

gathered were examined and applied in a systematic way in order to create a project charter with the use of a modified template as indicated below.

GRENADA TOURISM ENHANCEMENT PROJECT CHARTER

Executive Summary

Over the years, the Island of Grenada has been faced with a low share of tourist arrival, which has been attributed to the deplorable state of tourist attraction sites on the island, in particular Fort George which is situated in the heart of the main town of Grenada, five minutes away from the island's curise ship terminal. In an effort to solve this problem, the Grenada Tourism Enhancement Project (GTEP) has been created in order to enhance Fort George to prevent further loss of tourist arrivals and the associated revenue that can be generated.

Project Purpose/Justification

Business Need/Case

The Grenada Tourism Enhancement Project has been created in order to enhance the island's marketability as a tourist destination site and create an opportunity for income generation through increased tourist arrivals and spending.

Business Objectives

The Project Coordination Unit does not have an organizational strategic plan; however, the business objectives of the The Grenada Tourism Enhancement Project include the following: -

I. To increase opportunities for tourist arrivals and spending (revenue generation).
II. To increase foreign currency earnings through the income generated from commercial operators (airlines, cruise ships).
III. To improve the quality of life for locals in the community by providing an avenue to attract tourism related businesses (direct and indirect employment).

IV. To stimulate local development.
V. To improve tourist facilities.

Project Description

The Grenada Tourism Enhancement Project will entail the restoration of Fort George as a means of enhancing the tourist experience through the preservation and restoration of a historical site.

Project Objectives & Success Criteria

The objectives which mutually support the milestones and deliverables for this project have been identified. In order to achieve success on the GTEP, the following objectives must be met within the designated time and budget allocations:-

I. to implement climate resilient materials and sustainable solutions to light the facility and generate water;
II. to preserve all historic monuments and cannons on the site within the first twelve months of the project to prevent further deterioration;
III. to restore 95% of all rampart/defense walls within the first six months of the project to prevent further deterioration;
IV. to complete the preservation and restoration of Fort George within fourteen months before the next upcoming tourist season making it the leading tourist attraction site on the island.

High Level Requirements

This project must meet the following list of requirements in order to achieve success:-

I. Architecture must blend into that of the town of St, George.
II. It must preserve all historic monuments and cannons on the site.
III. It should preserve all rampart/stone walls.

IV. There should be physical allocations for a coffee shop, gift shop, interpretation center and toilet facilities. Coffee shop and bathroom facilities should be located on the ground floor and the gift shop & interpretation center should be located on the first floor. These facilities must have water, electricity and air conditioning.

V. Electricity should be generated by the use of solar panels.

VI. Rain water should be harvested and used through the irrigation system to maintain the lawn and plants on the Fort.

VII. The main building of the facility should be designed to withstand a category 5 hurricane.

VIII. Climate resilient material as well as corrosion resistant materials (stainless steel) should be integrated into the building components to prevent rusting due to the project's close proximity to the sea.

IX. All appliances, fixtures, fittings, railings should be made with stainless steel.

X. The contractor must adhere to the Environmental Management Plan.

XI. The contractor must develop a safey management plan before the commencement of the works which must be approved by the project manager.

XII. The contractor must provide monthly task schedules and monthly reports.

XIII. The contractor must not deviate from the technical specifications.

XIV. The contractor must staff a civil engineer to his technical team to guide the implementation of the works.

Constraints

The following constraints pertain to the Grenada Tourism Enhancement Project:-

I. No paint shall be used to the ramparts.

II. All historical features of the main building should be maintained.

III. The project cost should not exceed the budget of $2,573,341.20.

IV. The duration of the project should not exceed 14.4 months.

Assumptions

The following assumptions pertain to the Grenada Tourism Enhancement Project:-

I. Enough local competent contractors are available and interested in the project.
II. It is assumed that there are sufficient skilled and unskilled workmen to work on the project.
III. It is assumed that climate resilent materials and resources are available.
IV. It is assumed that the Physcial Planning Unit and Civil Society will approve the scope of works to be undertaken for the Rehabilitation of Fort George.
V. It is assumed that there is adequate financing to complete the project.
VI. It is assumed that the public will buy into the project.
VII. It is assumed that 12 months is sufficient time for the project to be completed.

High Level Risks

The following risks for the GTEP have been identified. The project manager will determine and employ the necessary risk mitigation strategies as appropriate to minimize the likelihood of these risks:-

I. There is a shortage/unavailability of climate resilient materials locally.
II. The price of materials significantly increases.
III. Ramparts are damaged during restoration and or cannot be salvaged.
IV. Rainy season delays projects longer than expected.
V. Stakeholders ignore or delay in responding to project communication.
VI. Stakeholder turnover and conflict occur.
VII. Architecture of facility fails to pass Physical Planning Unit approval.

Project Deliverables

There are several deliverables which will be produced as a result of the successful completion of the Grenada Tourism Enhancement Project. If all of the following

deliverables are not met then the project will not be considered successful. The Project Manager is responsible for ensuring the completion of these deliverables.

1. Deliverable 1 – Completed Design Drawings (Architectural, Structural, Electrial, Plumbing & Landscaping) and Design Calculatons, Bill of Quantities and Technical Specification submitted in electronic and hard copy.
2. Deliverable 2 – Completed and structurally sound ramparts/stone walls free from vines, cracks and defects adhering to the specifications described in the structural drawings.
3. Deliverable 3 – Completed and restored cannons and historic monuments free from defects, rust and cracks adhering to technical specifications described in the architectural drawings.
4. Deliverable 4 – Completed physical allocations for a coffee shop and bathroom facilities to be located on the ground floor and gift shop, and interpretation center on the first floor. The physical allocations should be free from any defects which include cracks, poor workmanship and uneven surfaces or otherwise and in accordance to technical specifications described in the architectural and structural drawings.
5. Deliverable 5 – Completed parking facilities for 50 vechicles, inclusive of coaster buses undertaken in the specified location and free from defects and settlement and adhering to structural technical specifications.
6. Deliverable 6 –Tested and operational solar lighting to the facility to facilitate night tours and events free of defects adhering to electrical specifications.
7. Deliverable 7 – Completed signage and concrete walkways around facility free from defects.
8. Deliverable 8 – Completed stainless steel railing erected around entire facility free from defects and poor workmanship in accordance to technical specifications.
9. Deliverable 9 – Completed and operational stainless steel appliances installed free form defects and poor workmanship in accordance to technical specifications.

10. Deliverable 10 – Roof completed with Fish Scale Clay tiles free from leakages and further defects installed in accodance to technical specifications.
11. Deliverable 11 – New architectural design of building and roof blends into the town of St. George in accordance to architectural designs.
12. Deliverable 12– Completed trimming and scaping of overgrown and overhanging trees and the removal of weeds and vines in accordance to landscaping design.
13. Deliverable 13 – Tested and operational`rainwater harvesting and plumbing system free of defects adhering to electrical specifications.
14. Deliverable 14 – Maintenance manuals, warranty for appliances and as built drawings.

Summary Milestone Schedle

The project Summary Milestone Schedule is presented in Chart 6 below. As requirements are more clearly defined this schedule may be modified. Any changes will be communicated through project status meetings by the project manager.

Chart 6 Project Milestones (Source: N. Andall, Author of Study)

Project Milestone	Target Date
Advertisement for Design Consultants Start	12/25/17
Contract Negoatation & Award for Design Consultants Completed	1/30/18
Conceptual Design Completed	3/2/18
Architectural & Landscaping Designs Completed	4/13/18
Bill of Quantities & Technical Specifications Completed	6/1/18
Physial Planning Permit Approval Completed	6/22/18
Selection of Contractor	7/6/18

Rampart & Defense Walls Restored	9/28/18
Roof Completed	8/3/18
Installation of Appliances	10/5/18
Cannons & Monuments Restored	11/16/18
Cleaning Up & Trimming of Trees	11/9/18
Final Walkthrough	11/19/18
Certificate of Completion Issues	12/4/18
Handover Ceremony	12/5/18

Summary of Budget

Chart 7 below contains a summary budget of the restoration of Fort George, based on the planned cost components and estimated costs required for successful completion of the project.

Chart 7 Summary Budget (Source: N. Andall, Author of Study)

Summary Budget- Fort George Restoration	
Item	**Cost $XCD**
Project Management Unit Labour, Contractor's Labour and Design Consultant Labour Costs	$ 247,432.00
Restoration of rampart & defense walls	$ 500,000.00
Roof	$ 239,120.00
Partitions, shelves & counters	$ 195,200.00
Masonary work & finishes	$ 229,920.00
Electrical works & solar system	$ 388,640.00
Plumbing works & sprinkler system	$ 78,000.00
Doors & Windows	$ 167,760.00

Summary Budget- Fort George Restoration	
Item	**Cost $XCD**
Flooring	$ 96,880.00
Appliances	$ 58,720.00
Concrete works	$ 191,000.00
Railing	$ 952,360.00
Signage	$ 24,208.00
Cannons & Monuments restoration	$ 75,800.00
Benches	$ 46,800.00
Cleaning up & trimming of trees	$ 18,560.00
As Built Drawings	$ 1,000.00
Sub Total (Material & Labour) – Project Cost Estimate	$ 2,175,380.00
Contingency Reserve from Quantitative Risk Analysis	$ 45,514.00
Cost Baseline = Project Cost Estimate + Contingency Reserve from Quantitative Risk Analysis	$ 2,220,894.00
Management Reserve = 10% of total project cost estimate	$ 217,538.00
Budget = Cost Baseline + Management Reserve	**$ 2,438,432.00**

Project Approval Requirements

Success for the GTEP will be attained once the details of the requirements and the scope statement for the restoration of Fort George have been achieved.

Project Manager

Ronnie Theodore is the project manager for the duration of the GTEP. Mr. Theodore's responsibilities include team leadership, coordinating activities, scheduling activities, cost estimating and budgeting, analyzing & managing risks, controlling quality, procurement and monitoring and reporting.

Authorization

Approved by the Project Sponsor:

_____ Date :_____

International Bank for Reconstruction and Development

Piscope, M. (2017) . Project Charter. Retrieved on September 9, 2017 from http://www.projectmanagementdocs.com/initiating-process-group/project-charter-long.html#axzz4uI3dUcTH.

4.1.2 Initiating Process Group - Identification of Stakeholders

After the project charter was developed, the stakeholders for the GTEP were identified. According to the Project Management Institute (2013), stakeholder identification is the process of identifying the people, groups, or organizations that could impact or be impacted by a decisión, activity, or outcome of the project and analyzing and documenting relevant information regarding their interest, involvement, influence and potentail impact on project sucess, (Project Management Institute 2013). In order to produce the stakeholder register indicated below, which would provide identification,assessment and classification information for the stakeholders, the project charter was used as an input into this process through the use of the tool stakeholder analysis.

Chart 8 Stakeholder Register (Source: N. Andall, Author of Study)

Name	Stakeholder	Role of Stakeholder	Contact Information	Major Requirements
Camillo Alexis	Project Sponsor	To provide project funding	CamilloAlexis@IDB.org	a. The project must be completed within the budget and on schedule.
Margaret Belfon	Project Coordinator	Coordinate all projects within the PCU and ensure its smooth implementation	MargaretBel@pcu.com	a. The project must be completed within the budget and on schedule. b. All stakeholders should be involved continuously throughout the project to ensure all requirements have been captured to prevent redesign.
Ronnie Theodore	Project Manager	Project Management	RonnieTheo@pcu.com	a. The project must be completed within the budget and on schedule. b. Stakeholders must actively participate and be clear on their needs & requirements for the project.

Name	Stakeholder	Role of Stakeholder	Contact Information	Major Requirements
Jenny Alexander	Procurement Officer	To undertake procurement actvities for the project-acquire goods and servies	JennyAlex@pcu.com	a. The project must be completed within the budget and on schedule. b. All payment certificates or requests for payments are to be submitted with supporting documentation and signed by the project manager.
Najar Andall	Project Engineer	To approve to provide quality assurance during construction	NajarAndall@pcu.com	a. Contractor complies with the designs and specifications. b. The project must be completed within the budget and on schedule. c. All variations should be requested in writing and the contractor should not proceed until formal approval is given.
Natika Bain Charles	Financial Specalist	Financial Controller	NatikaCharles@pcu.com	a. There should be adequate funds for the project in order to process payments within the stipulated contract period. b. The project must be completed within the budget and on schedule.
Wayne Sandiford	Permanent Secretary of the Ministry of Finance	To oversee the operations of the PCU and provide resources as required to ensure the smooth implementation of the works	WayneSandi@govgd.com	a. The project must be completed within the budget and on schedule. b. Building works contract must be signed with the Ministry of Works.
Patrica Clarke	Ministry of Tourism	Accept deliverables and assist with determining project scope	PatricaClarke@govgd.com	a. Architecture must blend into that of the town of St, George. b. All historic monuments and cannons on the site should be preserved. c. All rampart/stone walls should be preserved. d. There should be p xhysical allocations for a coffee shop, gift shop, interpretation center and toilet facilities. Coffee Shop and Bathroom Facilities to be located on the ground floor and the Gift Shop & Interpretation Center should be located on the first floor.

Name	Stakeholder	Role of Stakeholder	Contact Information	Major Requirements
				These facilities must have water, electricity, air conditioning. e. Electricity should be generated by the use of solar panels. f. Rain water should be harvested and used through the irrigation system to maintain the lawn and plants on the Fort. g. The main building of the facility should be designed to withstand a category 5 hurricane. h. Climate resilient material as well as corrosion resistant materials (stainless steel) should be integrated into the building components to prevent rusting due to the project's close proximity to the sea. i. All appliances, fixtures, fittings, railings should be made with stainless steel. j. Ministry of Tourism staff will provide requirements for design of facility. k. Ministry of Tourism senior staff will review and approve architectural drawings and specifications. l. The project must be completed within the budget and on schedule.
Fabian Purcell	Physical Planning Unit	To approval requests for infrastructural development and compliance with the Grenada Building Code	FabianPurcell@ppu.com	a. Building must adhere to the architecture of St.Geoges, the town of Grenada, b. All historic monuments and cannons on the site should be preserved. c. All rampart/stone walls should be preserved. d. The main building of the facility should be designed to withstand a category 5 hurricane. e. Climate resilient and corrosion resilient materials should be incooperated. f. Three storey buildings are not permitted. g. There should be compliance with the Grenada Building Code .
Whyme Cox	Engineering Society	To ensure structural integrity is maintained	WhymeCox@gipe.com	a. Building must adhere to the architecture of St. Geoges, the town of Grenada.

Name	Stakeholder	Role of Stakeholder	Contact Information	Major Requirements
				b. All historic monuments and cannons on the site should be preserved. c. All rampart/stone walls should be preserved. d. The main building of the facility should be designed to withstand a category 5 hurricane. e. Climate resilient and corrosion resilient materials should be incooperated. f. Final designs are submitted for review and buy- in.
Sandra Ferguson	Civil Society	To ensure the preservation of Grenada's history	SandraFerguson@cs.com	a. Designs maintain and preserve the history of Fort George. b. Designs are submitted for approval before submission to the Physical Planning Unit to ensure public buy-in to the project. c. Building must adhere to the architecture of St.Geoges, the town of Grenada. d. All historic monuments and cannons on the site should be preserved. e. All rampart/stone walls should be preserved. f. The main building of the facility should be designed to withstand a category 5 hurricane. g. Climate resilient and corrosion resilient materials should be incooperated.
INES	Design Consulting Firm	To undertake designs, provide technical specifications and bill of quantities for Fort George	INES@engrs.com	a. Stakeholder requirements for facility should be considered. b. All social issues should be resolved.

Name	Stakeholder	Role of Stakeholder	Contact Information	Major Requirements
To be determined	Contractor	To undertake rehabiitation work to Fort George		a. Access to site b. Detailed working drawings and technical specifications c. For payments to be processed within the stipulated timeframe d. For all social issues to be resolved
The Public	The Public	To approve scope of works		a. To be involved in community consultations b. To approvde conceptual designs c. To be employed during the constrcution phase

4.1.3 Planning Process Group - Develop Project Management Plan

Once the initiating process group for project integration management and project stakeholder management were completed, the planning processes were commenced. Planning process groups are “those process required to establish the scope of the project, refine the objectives, and define the course of action required to attain the objectives that the project was undertaken to achieve”, (Project Management Institute, 2013, p.418).

Developing the Project Management Plan falls under the planning process group for project integration management and according to the Project Management Institute (2013), it is the “process of defining, preparing, and coordinating all subsidary plans and intregrating them into a comprehensive project management plan. The project’s integrated baselines and subsidary plans may be included within the project management plan”, (Project Management Institute, 2013, p.63).

4.1.4 Monitoring & Controlling Process Group - Perform Integrated Change Control

Perform Integrated Change Control is the “process of reviewing all change requests; approving changes and managing changes to deliverables, organizational process assets, project documents, and the project management plan; and communicating their disposition. It reviews all requests for changes or modification to project documents, deliverables, baselines, or the project management plan and approves or rejects the changes”, (Project Management Institute, 2013, p.94).

Perform Integrated Change Control is the responsibility of the Project Manager and it is conducted from project inception through project completion. Project deliverables, the project management plan, scope statement among others are maintained by carefully and continuously rejecting or approving changes.

Changes can be requested verbally by any stakeholder, team member or the Project manager himself, but must be recorded formally on a change request form and entered into the change management system, which may require information on estimated time and cost impacts. Change requests are subject to the process specified in the change management plan (see Appendix 5) also specified herein.

All change requests will be submitted to the Project Manager (who will evaluate the requests), if the request is verbally made the Project Manager will enter it onto a change request form. Once evaluated and accepted, the Project manager will submit the change request to the Change Control Board/Project Steering Committee. The Change Control Board will review, evaluate, approve or deny changes requested and record and communicate those decisions to the Project Manager. Once the Change Control Board has approved any changes it will be forwarded to Project Sponsor through the Project Manager for acceptance. Upon acceptance of the changes by the Project Sponsor, the Project Manager and his team will update all project documents and communicate the changes to all Stakeholders.

The inputs used to perform integrated change control include the project management plan (scope management plan, scope baseline and change control process), work performance reports which will give guidance on resource availability,schedule and cost data, earned value management reprts and burnup charts. Change requests, organizational process assets and enterprise environmental factors. The tools and techniques that will be applied are expert judgement, meetings and change control tools. The outputs that will be produced are approved change requests, change log, project management plan updates to the subsidary plans and baselines, and project document updates. Figure 4 below depicts the data flow diagram of the process.

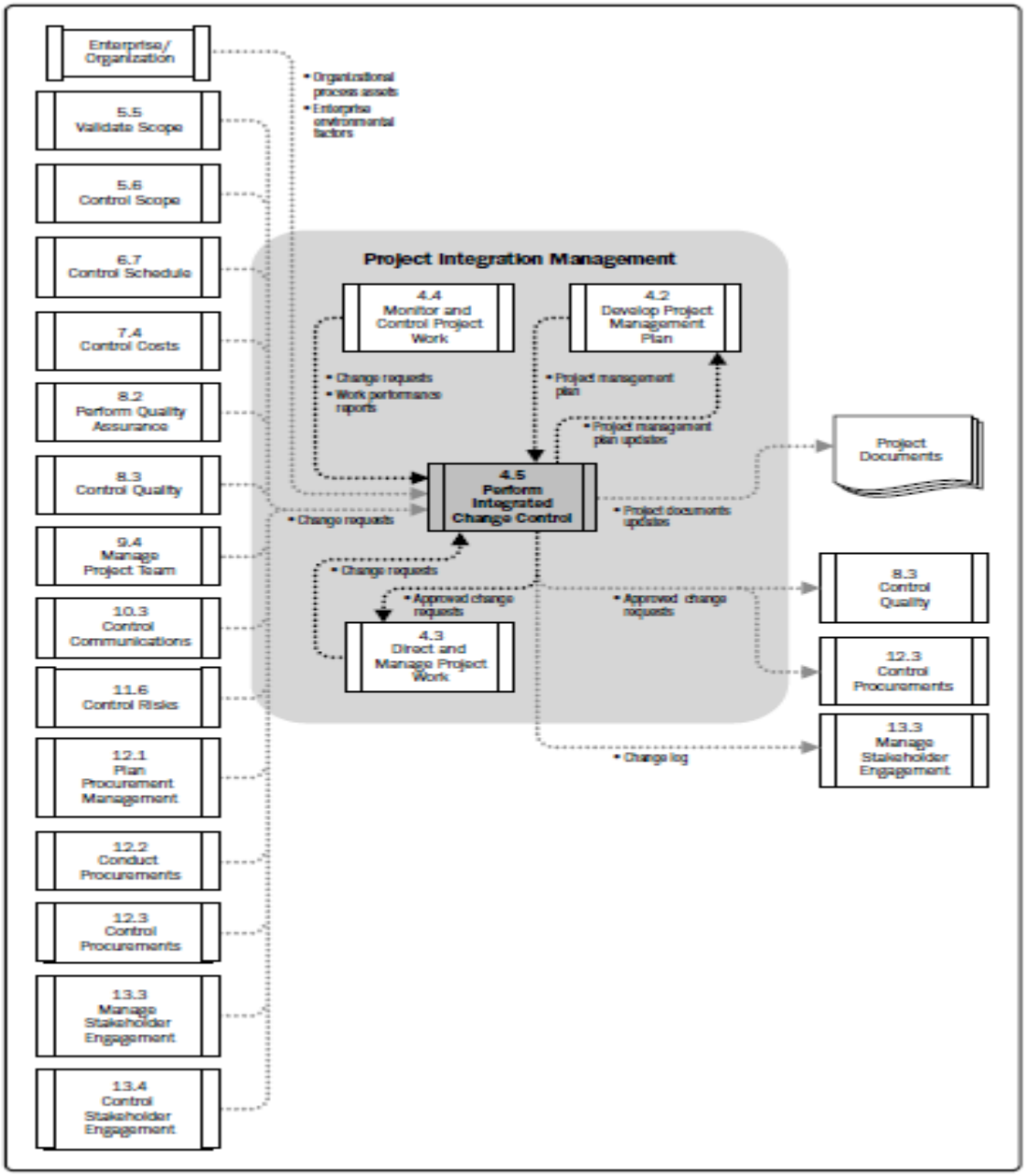


Figure 4-11. Perform Integrated Change Control Data Flow Diagram

Figure 4 Perform Integrated Change Control Data Flow Diagram (Source: Project Management Institute, 2013, p 95).

4.2 Project Scope Management

According to the Project Management Institute, project scope management includes “the processes required to ensure that the project includes all work required, and only the work required, to complete the project successfully”, (Project Management Institute, 2013, p.105). In order to develop GTEP’s scope management, the planning process groups that were considered entailed: plan scope management, collect requirements, define scope and create work breakdown structure.

4.2.1 Plan Scope Management

Plan Scope Management is the first process of project scope management and it is the process of “creating a scope management plan that documents how the project scope will be defined, validated, and controlled’ (Project Management Institute, 2013, p.105) and essentially gives guidance on how the project’s scope will be managed throughout its lifecycle. In order to plan scope management for the construction of the GTEP, the project’s charter was used as an input along with the tools and techniques of expert judgement and a meeting with the Project Coordinator of the PCU, in order to produce the scope management plan seen below.

GRENADA TOURISM ENHANCEMENT PROJECT SCOPE MANAGEMENT PLAN

Introduction

The Grenada Tourism Enhancement Project is geared towards the restoration of Fort George as a means of enhancing the tourist experience through the preservation and restoration of a historical site.

This Scope Management Plan provides the scope framework for the GTEP as it documents the scope management approach; roles and responsibilities as they

pertain to project scope; scope definition; verification and control measures; scope change control; and the project's work breakdown structure. Any project communication which pertains to the project's scope should adhere to the Scope Management Plan.

Scope Management Approach

Scope management for the GTEP will be the sole responsibility of the Project Manager. The project's scope will be defined by the Scope Statement, Work Breakdown Structure (WBS) and WBS Dictionary. The Project Manager, Sponsor and Stakeholders will establish an approve documentation for measuring project scope which includes deliverables quality checklists and work performance measurements.

Perform Integrated Change Control

Changes can be requested verbally by any stakeholder, team member or the Project manager himself, but must be recorded formally on a change request form and entered into the change management system, which may require information on estimated time and cost impacts. Change requests are subject to the process specified in the change management plan (see Appendix 5) also specified herein.

All change requests will be submitted to the Project Manager (who will evaluate the requests), if the request is verbally made the Project Manager will enter it onto a change request form. Once evaluated and accepted, the Project manager will submit the change request to the Change Control Board/Project Steering Committee. The Change Control Board will review, evaluate, approve or deny changes requested and record and communicate those decisions to the Project Manager. Once the Change Control Board has approved any changes it will be forwarded to Project Sponsor through the Project Manager for acceptance. Upon acceptance of the changes by the Project Sponsor, the Project Manager and his team will update all project documents and communicate the changes to all Stakeholders.

Roles and Responsibilities

The project manager, sponsor and team will all play key roles in managing the scope of the GTEP, therefore it is paramount that the project sponsor, project manager and team members be aware of their responsibilities in order to ensure that work performed on the project is within the established scope throughout the entire duration of the project. Chart 9 below defines the roles and responsibilities for the scope management of this project.

Chart 9 Roles and Responsibilities (Source: N. Andall, Author of Study)

Role	Responsibilities
Project Sponsor	a. Provides resources and support for the project b. Serves an escalation path for issues beyond the control of the Project Manager c. Approves or denies scope change requests as appropriate d. Evaluates the need for scope change requests e. Accepts project deliverables and phase end reviews, go/no-go decisions f. Provides guidance to the Project Manager
Project Manager	a. Measures and verifies project scope b. Facilitates scope chnage requests c. Facilitates impact assessment of scope change requests d. Organizes and facilitates scheduled change control meetings e. Communicates outcomes of scope change requests f. Updates project documents upon approval of all scope changes
Project Team	a. Undertakes the work of the project as directed by the Project Manager b. Participates in defining change resolutions c. Evaluates the need for scope changes and communicates them to the Project Manager

Role	Responsibilities
Project Steering Committee (Heads of Units & Procurement Board)	a. Ensures the delivery of the project's outputs and the attainment of outcomes by facilitating coordination among the institutions participating in the project b. Addresses coordination issues as they arise during project implementation c. Reviews periodic reports on project implementation as submitted by the Project Manager d. 33Recommends scope changes as well as review and approve scope changes e. Approves project deliverables
Stakeholders	a. Participate in community consultation to recommend project requirements b. Recommend scope changes c. Approve project deliverables
Design Consulting Firm	a. Will provide conceptual and final designs for the project b. Provides technical specifications, environmental management plans, safety plans and bill of quantities for the project c. Monitors the progress of the construction activties at strategic intervals
Contractor	a. To undertake construction activities as required for the project b. To comply with the contract terms c. To complete the project within budget, scope and time.

Scope Definition

The scope for this project was defined through a comprehensive requirements collection process. First, a thorough document analysis was performed on the project's apprasial document and stakeholder consultation meeting minutes. An interview was also held with the Project Coordinator of the PCU to provide insight. The project description and deliverables were then developed based on the requirements collected.

Scope Verification

As this project progresses, the project manager will verify interim project deliverables against the original scope as defined in the scope statement, WBS

and WBS Dictionary. Once the project manager verifies that the scope meets the requirements defined in the project plan, the project manager and sponsor will meet for formal acceptance of the deliverable. During this meeting, the project manager will present the deliverable to the project sponsor for formal acceptance. The project sponsor will accept the deliverable by signing a project deliverable acceptance document. This will ensure that project work remains within the scope of the project on a consistent basis throughout the life of the project.

Scope Control

The project manager and the project team will work together to control the scope of the project. The project team will leverage the WBS Dictionary by using it as a statement of work for each WBS element. The project team will ensure that they perform only the work described in the WBS dictionary and generate the defined deliverables for each WBS element. The Project Manager will oversee the project team and the progression of the project to ensure that this scope control process is followed.

If a change to the project scope is needed, the process for recommending changes to the scope of the project must be carried out. Any project team member or sponsor can request changes to the project scope. All change requests must be submitted to the Project Manager in the form of a project change request document. The Project Manager will then review the suggested change to the scope of the project. The Project Manager will then either deny the change request if it does not apply to the intent of the project or convene a change control meeting between the project team and sponsor to review the change request further and perform an impact assessment of the change. If the change request receives initial approval by the Project Manager and Sponsor, the Project Manager will then formally submit the change request to the Change Control Board. If the Change Control Board approves the scope change, the Project Sponsor will then formally accept the change by signing the project change control document. Upon acceptance of the scope change by the Change Control Board and Project

Sponsor, the Project Manager will update all project documents and communicate the scope change to all project team members stakeholders.

Authorization

Approved by the Project Sponsor: _____ Date :_____ International Bank for Reconstruction and Development

Piscope, M. (2017) .Scope Management Plan. Retrieved on September 9, 2017 from http://www.projectmanagementdocs.com/project-planning-templates/scope-management-plan.html#axzz4ul3dUcTH.

4.2.2 Collect Requirements

Collect requirements is second process of project scope management and it is the process of "determining, documenting, and managing stakeholder needs and requirements to meet the project objectives", (Project Management Institute, 2013, p. 110). The stakeholder management plan and stakeholder register were completed before requirements were collected for GTEP, as they ensure that not only all stakeholders are identified along with their requirements but also ensure that stakeholders are effectively involved in project decisions and execution throughout the lifecycle of the project. Along with the project charter and scope management plan, they were the main inputs used to develop the requirements traceability matrix for the project. The tools and techniques applied entailed interviews with stakeholders and document analysis was undertaken of the project's apprasial document and consultation meeting minutes in order to produce the requirements traceability matrix for GTEP.

The requirements traceability matrix in Chart 10 below has been created with the use of a modified template retrieved from an online source to ensure all project requirements are completed in accordance with the project charter. Any approved changes in project scope or requirements will result in changes to the traceability matrix below. Based on impacts of the approved changes, the Project Manager will

make the necessary changes to the matrix and communicate those changes to all project stakeholders.

Chart 10 Requirements Traceability Matrix (Source: Master of School Academy, Author of Requirements Traceability Matrix- Track & Control Requirements).

REQUIREMENTS TRACEABILITY MATRIX						
ID. #	**Project Requirements**	**Charter Reference**	**Business Need, Opportunities, Goals, Objectives**	**WBS Deliverable**	**Product Design**	**Test Case**
1.0	Architecture must blend into that of the town of St, George.	I	To preserve the natural heritage of the Island building's in order to attract tourist and generate revenue.	2.1, 2.2, 2.3	Georgian Architectural Designs	TC -1 Stakeholders review, verify and approve Architectural Designs
2.0	To preserve all historic monuments and cannons on the site.	II	To preserve the Islands history in order to attract tourist and generate revenue.	3.13	N/A – Welding Restoration & Painting	TC – 2 Project Manager to verify welding and painting.
3.0	To preserve all rampart/stone walls	III	To preserve the Islands history in order to attract tourist and generate revenue.	3.1	N/A – Cleaning & Repointing of Stone Walls (Architectural Designs)	TC – 3 Project Manager to verify cleaning and repointing of ramparts.
4.0	Physical allocations for a coffee shop, gift shop, interpretation center and toilet facilities. Coffee shop and bathroom facilities should be located on the ground floor and the gift shop and interpretation center	IV	To provide entertainment and generate revenue from the sale of souvenirs, drinks and food.	3.2, 3.3, 3.4, 3.5,3.6	Architectural Designs	TC – 4 Project Manager to verify allocations have

REQUIREMENTS TRACEABILITY MATRIX						
ID. #	**Project Requirements**	**Charter Reference**	**Business Need, Opportunities, Goals, Objectives**	**WBS Deliverable**	**Product Design**	**Test Case**
	should be located on the first floor. These facilities must have water, electricity, air conditioning.					been made for coffee shop, gift shop, interpretation center and toilet facilities.
5.0	Electricity should be generated by the use of solar panels.	V	To generate clean energy and reduce the cost of electricity (reduced expenses).	3.5	Solar System/Electrical Design	TC -5 Project Manager to verify solar electricity generation and connections.
6.0	Rain water should be harvested and used through the irrigation system to maintain the lawn and plants on the Fort.	VI	To generate water reducing the reliance on local wáter supplier (reduced expenses).	3.6	Water Harvesting/ Plumbing Design	TC – 6 Project Manager to verify wáter harvesting and plumbing connections.
7.0	The main building of the facility should be designed to withstand a category 5 hurricane.	VII	To preserve physcial investment and ensure that facility can resume work immediately after a hurriance.	2.1,2.4	Reinforcement & Concrete Design / Structural Design	TC – 7 Project Manager to verify structural components (reinforcement &

REQUIREMENTS TRACEABILITY MATRIX						
ID. #	**Project Requirements**	**Charter Reference**	**Business Need, Opportunities, Goals, Objectives**	**WBS Deliverable**	**Product Design**	**Test Case**
						concrete works meet specifications) during their execution.
8.0	Climate resilient material as well as corrosion resistant materials (stainless steel) should be integrated into the building components to prevent rusting due to the project's close proximity to the sea.	VIII	Quality climate resilient materials will ensure that the life of the building is maintained/preserved given that is close to the sea. This will reduce maintance costs.	2.1, 3.11, 3.2	Material Specification /Architectural Designs	TC – 8 Project Manager to verify materials meet technical specifications to prevent corrosión and ensure climate resilience.
9.0	All appliances, fixtures, fittings, railings should be made with stainless steel.	IX	Quality corrosion resistant materials will reduce corrosion maintance costs given that the facility is close to the sea.	3.9	Material Specification /Architectural Designs	TC -9 Project Manager to verify materials meet technical specifications to prevent corrosión.

4.2.3 Define Scope

Defining project scope is the third process of project scope management and it is the process of developing " a detailed description of the project and product", (Project Management Institute, 2013, p. 120). In order to define the project's scope, the inputs used were the scope management plan, project charter and the requirements traceability matrix. The tool and technique applied was expert judgement in order to produce the project's scope statement indicated below with the use of a modified template.

GRENADA TOURISM ENHANCEMENT PROJECT SCOPE STATEMENT

Introduction

The Grenada Tourism Enhancement Project is geared towards the restoration of Fort George as a means of enhancing the tourist experience through the preservation and restoration of a historical site. This Project Scope Statement serves as a baseline document for defining the scope of the Grenada Tourism Enhancement Project, project deliverables, work which is needed to accomplish the deliverables, and ensuring a common understanding of the project's scope among all stakeholders. All project work should occur within the framework of the project scope statement and directly support the project deliverables. Any changes to the scope statement must be vetted through the approved Project Change Management Process prior to implementation. The

High Level Requirements

In order to enhance the island's marketability as a tourist destination site and create an opportunity for income generation through increased tourist arrivals and spending. The following high level requirements have been identified:-

1. Architecture must blend into that of the town of St, George.
2. Project must preserve all historic monuments and cannons on the site and should preserve all rampart/stone walls.
3. There should be physical allocations for a coffee shop, gift shop, interpretation center and toilet facilities. Coffee shop and bathroom facilities should be located on the ground floor and the gift shop & interpretation center should be located on the first floor. These facilities must have water, electricity and air conditioning. Parking facilities for 50 vechicles.
4. Electricity should be generated by the use of solar panels and rain water should be harvested and used through the irrigation system to maintain the lawn and plants on the Fort.
5. The main building of the facility should be designed to withstand a category 5 hurricane, climate resilient material should be integrated into the building and appliances should be corrosión resistant.

Project Deliverables

There are several deliverables which will be produced as a result of the successful completion of the Grenada Tourism Enhancement Project. If all of the following deliverables are not met then the project will not be considered successful. The Project Manager is responsible for ensuring the completion of these deliverables.

1. Deliverable 1 – Completed Design Drawings (Architectural, Structural, Electrial, Plumbing & Landscaping) and Design Calculatons, Bill of Quantities and Technical Specification submitted in electronic and hard copy.
2. Deliverable 2 – A completed and structurally sound ramparts/stone walls free from vines, cracks and defects adhering to the specifications described in the structural drawings.
3. Deliverable 3 – Completed and restored cannons and historic monuments free from defects, rust and cracks adhering to technical specifications described in the architectural drawings.

4. Deliverable 4 – Completed physical allocations for a coffee shop and bathroom facilities to be located on the ground floor and gift shop, and interpretation center on the first floor. The physical allocations should be free from any defects which include cracks, poor workmanship and uneven surfaces or otherwise and in accordance to technical specifications described in the architectural and structural drawings.
5. Deliverable 5 – Completed parking facilities for 50 vechicles, inclusive of coaster buses undertaken in the specified location and free from defects and settlement and adhering to structural technical specifications.
6. Deliverable 6 –Tested and operational solar lighting to the facility to facilitate night tours and events free of defects adhering to electrical specifications.
7. Deliverable 7 – Completed signage and concrete walkways around facility free from defects.
8. Deliverable 8 – Completed stainless steel railing erected around entire facility free from defects and poor workmanship in accordance to technical specifications.
9. Deliverable 9 – Completed and operational stainless steel appliances installed free form defects and poor workmanship in accordance to technical specifications.
10. Deliverable 10 – Roof completed with Fish Scale Clay tiles free from leakages and further defects installed in accodance to technical specifications.
11. Deliverable 11 – New architectural design of building and roof blends into the town of St. George in accordance to architectural designs.
12. Deliverable 12– Completed trimming and scaping of overgrown and overhanging trees and the removal of weeds and vines in accordance to landscaping design.
13. Deliverable 13 – Tested and operational`rainwater harvesting and plumbing system free of defects adhering to electrical specifications.
14. Deliverable 14 – Maintenance manuals, warranty for appliances and as built drawings.

Acceptance Criteria

Acceptance criteria have been established for the Grenada Tourisum Enhancement Project to ensure thorough vetting and successful completion of the project. All acceptance criteria must be met in order to achieve success for this project. If there is any deviation from the respective technical specifications the Project Team will notify the Project Manager who will then bring it to the attention of the Contractor and the Contractor will be requested to undo the works at his own cost and revise the works according to the respective specifications not followed. Any other changes will have to follow the Perform Integrated Change Control process as developed in the scope management plan.

1. Deliverable 1 – The Project Manager will inspect all drawings, design calculatons, bill of quantities and technical specification and ensure it is consistent with clients requirements.
2. Deliverable 2 – The Project Manager will visually inspect the progression of the works to the ramparts to its completion in order to verify compliance with the technical specifications provided in the structural drawings.
3. Deliverable 3 – The Project Manager will visually inspect the progression of the works to the Cannons & Monuments to its completion in order to verify compliance with the technical specifications provided in the architectural drawings.
4. Deliverable 4 – The Project Manager will ensure that once materials are brought to site they are accompanied with the respective quality assurance certificates and that square foot allocations for each room are in accordance to architectural speficiations. The Project Manager will also ensure that all requisite tests (concrete test) are completed and that quality assurance certificates are given clearance at the appropriate stages in accordance to the technical specifications provided.
5. Deliverable 5 – The Project Manager will ensure parking facilities are made for 50 vechicles, inclusive of coaster buses undertaken in the specified

location and dimensions, free from defects and settlement and adhering to structural technical specifications.

6. Deliverable 6 – The Project Manager will witness the electrical test for the facility before accepting quality assurance certificate from Electrician inorder to verify no defects.
7. Deliverable 7– The Project Manager will inspect completed signage and concrete walkways around facility ensuring that they are free from defects and adhere to specifications
8. Deliverable 8 – The Project Manager will inspect completed stainless steel railing erected around entire facility to ensure that it is free from defects and poor workmanship in accordance to technical specifications.
9. Deliverable 9 – The Project Manager will inspect completed and operational stainless steel appliances installed ensuring it is free form defects and poor workmanship in accordance to technical specifications.
10. Deliverable 10 – The Project Manager will inspect the roof ensuring it is completed with Fish Scale Clay tiles free from leakages and further defects in accodance to technical specifications.
11. Deliverable 11 – The Project Manager will inspect architectural design of building and roof to ensure it blends into the town of St. George in accordance to specifications.
12. Deliverable 12 – The Project Manager will inspect completed trimming and scaping of overgrown and overhanging trees and the removal of weeds and vines in accordance to landscaping design and verify compliance.
13. Deliverable 13 – The Project Manager will witness the plumbing tests of the rainwater harvesting and plumbing system to ensure it is free from defects, adhering to plumbing specifications.
14. Deliverable 14 – The Project Manager to review maintenance manuals, warranty for appliances and as built drawings to ensure it is consistent with the good produced and works done.

Assumptions

The following assumptions pertain to the Grenada Tourism Enhancement Project:-

1. Enough local competent contractors are available and interested in the project.
2. It is assumed that there are sufficient skilled and nonskilled workmen to work on the project.
3. It is assumed that climate resilent materials and resources are available.
4. It is assumed that the Physcial Planning Unit and Civil Society will approve the scope of works to be undertaken for the Rehabilitation of Fort George.
5. It is assumed that there is adequate financing to complete the project.
6. It is assumed that the public will buy into the project.

Constraints

The following constraints pertain to the Grenada Tourism Enhancement Project:-

1. All historical features of the main building should be maintained.
2. The project cost should not exceed the budget of $2,438,432.00 ECD.
3. The duration of the project should not exceed 14.4 months.

Project Exclusion

I. No demolition of external walls

II. No expansion of main building on Fort George

Authorization

Approved by the Project Sponsor:

_____ Date :_____

International Bank for Reconstruction and Development

Piscope, M. (2017) .Scope Management Plan. Retrieved on Janurary 9, 2018 from http://www.projectmanagementdocs.com/project-documents/project-scope-statement.html

4.2.4 Create Work Breakdown Structure (WBS)

Create WBS is the fourth and final planning process of project scope management and according to the Project Management Institute, this is the process of "subdividing project deliverables and project work into smaller, more manageable components", (Project Management Institute, 2013, p. 125). The project's scope statement, scope management plan and requirements documentation were then applied as inputs to create the work breakdown structure for the GTEP through the use of the tool decomposition which yielded the output scope baseline which includes the work breakdown structure, the work breakdown structure dictionary and the project scope statement.

Work Breakdown Structure (WBS)

In order to effectively manage the work required to complete this project, it will be subdivided into individual work packages which will not exceed 40 hours of work. This will allow the Project Manager to more effectively manage the project's scope as the project team works on the tasks necessary for project completion. The project is broken down into four phases: the procurement phase, design & approval phase, construction phase and post construction phase. Each of these phases is then subdivided further down to work packages which will require no more than 40 hours of work and no less than 4 hours of work (see WBS structure in the Figure 4 below).

Figure 5 Work Breakdown Structure (Source: N. Andall, Author of Study)

In order to more clearly define the work necessary for project completion, the WBS Dictionary is used. The WBS Dictionary includes an entry for each WBS element. The WBS Dictionary includes a detailed description of work for each element and the deliverables, budget and resource needs for that element. The project team will use the WBS Dictionary as a statement of work for each WBS element. See Chart 11 below.

Chart 11 Work Breakdown Structure Dictionary (Source: N. Andall, Author of Study)

WBS Level	WBS Code	Element Name	Description of Work	*Cost Estimate $*	Human Resources	Material Resources
1.0	**0.0**	**Construction of the Grenada Tourism Enhancement Project**	**Restoration of Fort George**	**$2,175,380.00**	**Project Management Unit, Sponsor, Design Consultant, Contractor**	**Office Supplies, Equipment, Construction Materials & Equipmet**
2.0	**1.0**	**Procurement Phase**	**Obtaining Design Services for Fort George**	**$14,124.00**	**Project Management Unit & Sponsor**	**Office supplies**
2.0	1.1	Advertisement for Design Consultants	Requests for proposals are advertised through local newspapers for undertaking Designs for Fort George .	$10,340.00	Project Manager, Procurement Officer, Project Engineer,	Newspaper Computer Printer
2.0	1.2	Shortlist & Evaluation of Design Consultants	Once the request for proposals have been submitted, the Project manager and his team will evaluate the proposals to determine the most suitable design firm to undertake the Works.	$2,660.00	Project Manager, Procurement Officer, Project Engineer , Project Sponsor	Computer Printer
2.0	1.3	Contract Negotations & Award	Project Manager & Sponsor will negotiate with consultants on prices if required and award the contract.	$1,124.00	Project Manager, Procurement Officer, Project Engineer	Computer Printer
1.0	**2.0**	**Design & Approval Phase**	**Design Consulting Firm will collect requirements, undertake designs, prepare detailed scope of works and technical specifications.**	**$112,100.00**	**Project Management Unit, Sponsor, Stakeholders, Design Consultant**	**Office supplies & documents**
2.0	2.1	Collect Client Requirements	Consultant will request all required documentation and Project Charter to inform the designs and meet with stakeholders to ascertain needs and vision for project.	$5,520.00	Assistant Project Manager, Design Firm Architect, Stakeholders	Computer Printer Project Charter
2.0	2.2	Conceptual Design	The design firm will complete preliminary conceptual designs for approval before commencing final designs.	$12,880.00	Design Firm Architect, Project Manager, Project Engineer, Stakeholders	Computer AutoCad Plotter

WBS Level	WBS Code	Element Name	Description of Work	*Cost Estimate $*	Human Resources	Material Resources
2.0	2.3	Architectural & Landscaping Designs	Design firm will undertake architecural drawings (graphical visualization) & landscaping drawings to inform the design and guide the contractor.	$15,000.00	Design Firm - Architect	Computer AutoCad Plotter
2.0	2.4	Structural Designs	Design firm will undertake structural designs and construction drawings to detail the structural elements of Fort George.	$21,160.00	Design Firm – Civil Engineer & Draftsman	Computer STADD Software ASCE Standard
2.0	2.5	Electrical, Airconditioning & Plumbing Designs	Design firm will undertake electrical, airconditioning & plumbing designs and construction drawings to guide contractor.	$20,960.00	Design Firm- Electrical Engineer, Sanitary Engineer, AC Subcontractor	Computer AutoCad Plotter
2.0	2.6	Bill of Quantities & Technical Specifications	Preparation of detailed scope of works (descriptions, quantities, rates) based on designs and technical specifications (set of requirements) for all components of the design.	$18,440.00	Design Firm – Quantity Surveyor, Architect, Civil Engineer, - Electrical Engineer, Sanitary Engineer	ASCE Standard Computer Printer
2.0	2.7	Environmental & Saftey Management Plan	Recommended environmental and hazard mitigation and monitoring measures.	$1000.00	Design Firm- Civil Engineer	Computer Printer
2.0	2.8	Permit Approval	Applying to the Physical Planning Unit for approval to build.	$4900.00	Design Firm – Civil Engineer	Computer Printer
2.0	2.9	Bidding Documents for Works & Selection of Contractor	Preparation of documentation which will include advertisement or invitation to bidders, instructions to bidders, bid form, form of contract, forms of bonds, conditions of contract, specifications, drawings, addenda, and any other information needed to completely describe the work so that constructors can adequately prepare proposals or bids for the owner's consideration.	$12,240.00	Project Manager, Procurement Officer, Project Engineer	Computer Printer

WBS Level	WBS Code	Element Name	Description of Work	*Cost Estimate $*	Human Resources	Material Resources
1.0	**3.0**	**Construction Phase**	**Execution of the physical works**	**$2,040,000.00**	**Project Management Unit, Contractor Staff**	**Construction Equipment**
2.0	3.1	Rampart & Defense Walls cleaning & restoration.	Removal of all weeds, shrubs and obstructions from rampart and defense walls.	$550,000.00	Mason, Carpenter, Helper, Foreman, Contractor-Site Superintendent	Trowel Pointer Sponge Cement Bucket Wheel Barrow Mortar & Water
2.0	3.2	Installation of Roof	Installation of timber elements (rafters, ridge board, laths, plywood), wáter proofing membrane, fish scale clay tile finish and guttering to roof.	$250,000.00	Carpenter 2, Helper 2, Foreman 2, Roof Subcontractor	Scaffolding, Lumber, plywood, Clay tiles, Torch on Asphalt, scews, guttering
2.0	3.3	Timber partitions, shelves & counters	Lumber installed to partition rooms of the Coffee Shoop, Gift Shop & Intrepretation Center. Lumber used to counters and shelves in preparation of appliances.	$200,000.00	Carpenter 3, Helper 3, Skilled Interior Finisher	Lumber,saw, carpenter
2.0	3.4	Internal Masonary Works & Finishes	Seal cracks, repointing with mortar (cement, wáter & sand) to make new. Decorative Stone work to partitions.	$260,000.00	Mason 3, Helper 4, Skilled Interior Finisher Subcontractor, Painter	Cement Bucket Wheel Barrow Mortar & Water
2.0	3.5	Electrical Works	Rough in electrical works, installation of switches, light fixtures, transformers, meter base, electrcial panel, air conditioning and solar system unit.	$400,000.00	Electrical Subcontractor, AC Subcontractor, Solar System Subcontractor	switches, light fixtures, transformers, meter base, electrcial panel and solar system unit, electrician
2.0	3.6	Plumbing Works	Rough in plumbing works, installation of wáter clostes, face basins, faucets and sprinkler system.	$80,000.00	Plumbing Subcontractor	Wáter clostes, face basins, faucets and sprinkler system, plumber
2.0	3.7	Installation of Doors & Windows	Making good to all openings and installing Greenheart timber doors and window.	$170,000.00	Door & Window Subcontractor	Windows & doors

WBS Level	WBS Code	Element Name	Description of Work	*Cost Estimate $*	Human Resources	Material Resources
2.0	3.8	Internal flooring	Preparation of floor, levelling floor, applying screed and installing nonskid tiles to floor that resembles timber.	$100,000.00	Floor Finish Subcontractor	Tiler, tiles, tile cutter, spacers, grout
2.0	3.9	Installation of Appliances	Installation of all appliances – coffee maker, commercial cooker, refrigerator.	$60,000.00	Skilled Interior Finisher Subcontractor, Skilled Appliance Subcontractor	coffee maker, comercial cooker, refrigerator.
2.0	3.10	Concrete Works	Preparation of surfaces, cement, aggregate & wáter mixture to concrete walkways around facility and parking facilities.	$200,000.00	Mason, Mason 2, Mason 3, Ready Mix Concrete Subcontractor	Concrete, BRC, formwork, trowel, broom
2.0	3.11	Railings	Installation of stainless steel railings to secure facility.	$95,000.00	Welding Subcontractor	Stainless steel pipes, welder, non corrosive pipes
2.0	3.12	Signage	Installation of graphical designs to identify and give direction, presents historical information and or warnings.	$25,000.00	Sign Designer Subcontractor	Sign Designer Equipment
2.0	3.13	Cannons & Monuments	Restoration and repainting of cananons and monuments.	$80,000.00	Cannon & Monument Restorer Subcontractor	Welding machine, welding rods, Paint,
2.0	3.14	Benches	Construction of wooden benches from Green heart.	$50,000.00	Carpenter, Carpenter 2, Carpenter 3, Helper, Helper 2, Helper 3	Lumber, Bench Saw, Paint
2.0	3.15	Clean up & trimming of trees	Cleaning of site, trimming of trees and replaning of flowers and nutmeng beds.	$20,000.00	Landscaping Subcontractor	Lawnmow, snippers, saw, rakes, buckets, wheelborrow, sheers,
1.0	**4.0**	**Post Construction**	**Phase after completion of works**	**$9076.00**	**Project Manager, Project Team, Contractor, Designers, Stakeholders**	**Office supplies and construction equipment**
2.0	4.1	Final Walkthrough	Project Manager, Project Sponsor, Stakeholders, Project Team, Consultants & Contractor visits the site for a inspection of all the works undertaken.	$1,612.00	Project Manager, Project Sponsor, Stakeholders, Architect, Civil Engineer & Contractor-Site Superintendent	Notebook, pen,camera
2.0	4.2	Snag list preparation & remedial works	Defects list preparation and issued to the contractor to undertake remedial works.	$4,500.00	Poject Manager, Stakeholder, Contractor - Site Superintendent	Computer Printer

2.0	4.3	Certificate of Completion	Issuance of the Certificate of Completion.	$276.00	Assistant Project Manager	Computer,Printer
WBS Level	**WBS Code**	**Element Name**	**Description of Work**	***Cost Estimate $***	**Human Resources**	**Material Resources**
2.0	4.4	As Built Drawings	As Built Drawings Prepared by Contractor and Issues to Client	$1480.00	Contractor-Site Superintendent	Computer Printer
2.0	4.5	Final Account	Preparation of the projects final accounts documenting additions, ommissions and project savings if any.	$708.00	Project Manager ,Project Engineer ,Project Accountant	Computer Printer
2.0	4.6	Hand over Ceremony	Restored Fort Georg`e is presented to the Stakholders in ceremony.	$500.00	Project Manager, Project Sponsor, Stakeholders ,	Refreshments, Ribbon, Scissors

4.3 Project Time Management

According to the Project Management Institute, project time managament includes " the processes required to manage the timely completion of the project", (Project Management Institute, 2013, p.141).

4.3.1 Plan Schedule Management

For the purpose of this FGP, the first time management process that was explored is Plan Schedule Management which is the "process of establishing the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project Schedule", (Project Management Institute, 2013, p.141).

In order to provide guidance and direction on how the project schedule will be managed throughout the project, the Project Charter was used as an input into the process as it defines the summary milestones and project approval requirements. The tools and techniques used were expert judgement, meetings and analytical techniques in order to produce the schedule management plan.

Through the use of analytical and descriptive research, the information, facts and data gathered were examined and applied in a systematic way in order to create a schedule management plan with the use of a modified template as indicated below. The schedule management plan contains its purpose, roles and responsibilities, the schedule management approach, schedule monitoring & controlling, schedule changes & thresholds and scope change process.

GRENADA TOURISM ENHANCEMENT PROJECT SCHEDULE MANAGEMENT PLAN

Purpose

The project schedule is the roadmap for how the project will be executed. Schedules are an important part of any project as they provide the project team, sponsor, and stakeholders a picture of the project's status at any given time. The purpose of the schedule management plan is to define the approach the project team will use in creating the project schedule. This plan also includes how the team will monitor the project schedule and manage changes after the baseline schedule has been approved. This includes identifying, analyzing, documenting, prioritizing, approving or rejecting, and publishing all schedule-related changes.

Schedule Management Approach

The project schedule was created with the use of Microsoft Project 2016 starting with the deliverables identified in the project's Work Breakdown Structure (WBS). Activity definition will identify the specific work packages which must be performed to complete each deliverable. Activity sequencing will be used to determine the order of work packages and assign relationships between project activities. Activity duration estimating will be used to calculate the number of work periods required to complete work packages. Resource estimating will be used to assign resources to work packages in order to complete schedule development.

Once a preliminary schedule has been developed, it will be reviewed by the project team and any resources tentatively assigned to project tasks. The project team and resources must agree to the proposed work package assignments, durations, and schedule. Once this is achieved, the project sponsor will review and approve the schedule and it will then be baselined. The following will be designates as milestones for the project schedule:

Chart 12 Project Milestones (Source: N. Andall, Author of Study)

Project Milestone	Target Date
Advertisement for Design Consultants Start	12/25/17
Contract Negoatation & Award for Design Consultants Completed	1/30/18
Conceptual Design Completed	3/2/18
Architectural & Landscaping Designs Completed	4/13/18
Bill of Quantities & Technical Specifications Completed	6/1/18
Physial Planning Permit Approval Completed	6/22/18
Selection of Contractor	7/6/18
Rampart & Defense Walls Restored	9/28/18
Roof Completed	8/3/18
Installation of Appliances	10/5/18
Cannons & Monuments Restored	11/16/18
Cleaning Up & Trimming of Trees	11/9/18
Final Walkthrough	11/19/18
Certificate of Completion Issues	12/4/18
Handover Ceremony	12/5/18

Roles & Responsibilities

Roles and responsibilities for schedule development are as follows:

The project manager - will be responsible for facilitating work package definition, sequencing, and estimating duration and resources with the project team. The project manager will also create the project schedule using MS Project 2007 and validate the schedule with the project team, stakeholders, and the project sponsor. The project manager will obtain schedule approval from the project sponsor and baseline the schedule.

The project team - is responsible for participating in work package definition, sequencing, and duration and resource estimating. The project team will also review and validate the proposed schedule and perform assigned activities once the schedule is approved.

The project sponsor - will participate in reviews of the proposed schedule and approve the final schedule before it is baselined.
The project stakeholders - will participate in reviews of the proposed schedule and assist in its validation.

Schedule Monitoring & Control

The project schedule will be reviewed and updated as necessary on a bi-weekly basis with actual start, actual finish, and completion percentages which will be provided by task owners.

The project manager is responsible for holding bi-weekly schedule updates/reviews; determining impacts of schedule variances; submitting schedule change requests; and reporting schedule status in accordance with the project's communications plan.

The project team is responsible for participating in bi-weekly schedule updates/reviews; communicating any changes to actual start/finish dates to the project manager; and participating in schedule variance resolution activities as needed.

The project sponsor will maintain awareness of the project schedule status and review/approve any schedule change requests submitted by the project manager.

Schedule Changes & Thresholds

If any member of the project team determines that a change to the schedule is necessary, the project manager and team will meet to review and evaluate the change. The project manager and project team must determine which tasks will be impacted, variance as a result of the potential change, and any alternatives or variance resolution activities they may employ to see how they would affect the

scope, schedule, and resources. If, after this evaluation is complete, the project manager determines that any change will exceed the established boundary conditions, then a schedule change request must be submitted.

Submission of a schedule change request to the project sponsor for approval is required if either of the two following conditions is true:

- The proposed change is estimated to reduce the duration of an individual work package by 10% or more, or increase the duration of an individual work package by 10% or more.
- The change is estimated to reduce the duration of the overall baseline schedule by 10% or more, or increase the duration of the overall baseline schedule by 10% or more.

Any change requests that do not meet these thresholds may be submitted to the project manager for approval.

Once the change request has been reviewed and approved, the project manager is responsible for adjusting the schedule and communicating all changes and impacts to the project team, project sponsor, and stakeholders. The project manager must also ensure that all change requests are archived in the project records' repository.

Scope Change

Any changes in the project scope, which have been approved by the project sponsor, will require the project team to evaluate the effect of the scope change on the current schedule. If the project manager determines that the scope change will significantly affect the current project schedule, he/she may request that the schedule be re-baselined in consideration of any changes which need to be made as part of the new project scope. The project sponsor must review and approve this request before the schedule can be re-baselined.

Authorization

Approved by the Project Sponsor:

_____ Date :_____
International Bank for Reconstruction and Development

Piscope, M. (2017) . Schedule Management Plan. Retrieved on October 14, 2017 from http://www.projectmanagementdocs.com/project-planning-templates/schedule-management-plan.html#axzz4vUtdbfzv

4.3.2 Define Activities

Define Activities was the second process of project time management developed and it is the process of "identifying and documenting the specific actions to be performed to produce the project deliverables", (Project Management Institute, 2013, p.141). In order to define project activities, the project's Scope Management plan in particular its WBS, deliverables, constraints and asssumptions were used as inputs. The tools and techniques used were decomposition and expert judgement in order to produce the projects activity list, activity attributes and milestones list.

The activity list as seen in Chart 13 below is a "comprehensive list that includes all schedule activity in sufficient detail to ensure that the project team members understand what work is required to be completed. Each activity should have its own unique title that describes its place in the schedule", (Project Management Institute, 2013, p.152).

The activity attributes extend the description of the activity by identifying multiple components associated with each activity such as activity identifier (ID), WBS (ID), activity description, activity responsibility, predecessor activities, successor activities, leads and lags, constraints and assumptions, (Project Management

Institute, 2013, p.153). The activity attributes for the Grenada Tourism Enhancment Project can be seen in Chart 13 below.

Given that the milestone list is an output of the define activities process, the milestones in the project charter and schedule management plan were updated. Chart 14 below depicts the list of project milestones which according to the Project Management Institute is a “significant point or event in a project’, (Project Management Institute, 2013, p.141).

Chart 13 Activity List & Attributes (Source: N. Andall, Author of Study)

Activity ID No. /WBS ID	Activity Name	Description of Work	Predecessors	Successors	Responsibility
1.0	**Procurement Phase**	**Obtaining Design Services for Fort George**			Project Manager, Procurement Officer, Project Engineer
1.1	Advertisement for Design Consultants	Requests for proposals are advertised through local newspapers for undertaking Designs for Fort George .		Shortlist & Evaluation of Design Consultants	Project Manager, Procurement Officer, Project Engineer,
1.2	Shortlist & Evaluation of Design Consultants	Once the request for proposals have been submitted, the Project manager and his team will evaluate the proposals to determine the most suitable design firm to undertake the Works.	Advertisement for Design Consultants	Contract Negotations & Award	Project Manager, Procurement Officer, Project Engineer , Project Sponsor
1.3	Contract Negotations & Award	Project Manager & Sponsor will negotiate with consultants on prices if required and award the contract.	Shortlist & Evaluation of Design Consultants	Collect Client Requirements	Project Manager, Procurement Officer, Project Engineer
2.0	**Design & Approval Phase**	**Design Consulting Firm will collect requirements, undertake designs, prepare detailed scope of works and technical specifications.**			Project Manager, Design Firm, Stakeholders
2.1	Collect Client Requirements	Consultant will request all requirement documentation and Project Charter to inform the Designs and meet with stakeholders to asertain needs and visión for project.	Contract Negotations & Award	Conceptual Design	Assistant Project Manager, Design Firm Architect, Stakeholders
2.2	Conceptual Design	The Design firm will complete preliminary conceptual designs for approval before commencing final designs.	Collect Client Requirements	Architectural & Landscaping Designs	Design Firm Architect, Project Manager, Project Engineer, Stakeholders
2.3	Architectural & Landscaping Designs	Design Firm will undertake Architecural Drawings (graphical visualization) & Landscaping Drawings to inform the design and guide the contractor.	Conceptual Design	Structural Designs (Finish -Start) -2weeks	Design Firm - Architect
2.4	Structural Designs	Design Firm will undertake Structural Designs and Construction Drawings to detail the structural elements of Fort George.	Architectural & Landscaping Designs (Finish –Start -2weeks)	Electrical, Airconditioning & Plumbing Designs	Design Firm – Civil Engineer & Draftsman
2.5	Electrical, Airconditioning & Plumbing Designs	Design Firm will undertake Electrical, Airconditioning & Plumbing Designs and Construction Drawings to guide contractor.	Structural Designs	Bill of Quantities & Technical Specifications	Design Firm- Electrical Engineer, Sanitary Engineer, AC Subcontractor

Activity ID No. /WBS ID	Activity Name	Description of Work	Predecessors	Successors	Responsibility
2.6	Bill of Quantities & Technical Specifications	Preparation of detailed scope of works (descriptions, quantities, rates) based on designs and technical specifications (set of requirements) for all components of the design.	Electrical, Airconditioning & Plumbing Designs	Environmental & Saftey Management Plan	Design Firm – Quantity Surveyor, Architect, Civil Engineer, - Electrical Engineer, Sanitary Engineer
2.7	Environmental & Safety Management Plan	Recommended environmental and hazard mitigation and monitoring measures.	Bill of Quantities & Technical Specifications	Permit Approval	Design Firm- Civil Engineer
2.8	Permit Approval	Applying to the Physical Planning Unit for approval to build.	Environmental & Saftey Management Plan	Bidding Documents for Works & Selection of Contractor	Design Firm – Civil Engineer
2.9	Bidding Documents for Works & Selection of Contractor	Preparation of documentation which will include advertisement or invitation to bidders, instructions to bidders, bid form, form of contract, forms of bonds, conditions of contract, specifications, drawings, addenda, and any other information needed to completely describe the work so that constructors can adequately prepare proposals or bids for the owner's consideration.	Permit Approval	Rampart & Defense Walls cleaning & restoration, Installation of Roof	Project Manager, Procurement Officer, Project Engineer
3.0	**Construction Phase**	**Execution of the physical works**			Contractor Staff
3.1	Rampart & Defense Walls cleaning & restoration.	Removal of all weeds, shrubs and obstructions from Rampart and Defense walls.	Bidding Documents for Works & Selection of Contractor		Mason, Carpenter, Helper, Foreman, Contractor-Site Superintendent
3.2	Installation of Roof	Installation of timber elements (rafters, ridge board, laths, plywood), wáter proofing membrane, fish scale clay tile finish and guttering to roof.	Bidding Documents for Works & Selection of Contractor	Timber partitions, shelves & counters	Carpenter 2, Helper 2, Foreman 2, Roof Subcontractor
3.3	Timber partitions, shelves & counters	Lumber installed to partition rooms of the Coffee Shop, Gift Shop & Intrepretation Center. Lumber used for counters and shelves in preparation of appliances.	Installation of Roof	Internal Masonary Works & Finishes	Carpenter 3, Helper 3, Skilled Interior Finisher
3.4	Internal Masonary Works & Finishes	Seal cracks, repointing with mortar (cement, wáter & sand) to make new. Decorative Stone work to partitions.	Timber partitions, shelves &	Electrical Works(Finish-Start-4weeks), Plumbing	Mason 3, Helper 4, Skilled Interior Finisher Subcontractor, Painter

Activity ID No. /WBS ID	Activity Name	Description of Work	Predecessors	Successors	Responsibility
			counters	Works, Installation of Doors & Windows, Internal flooring	
3.5	Electrical Works	Rough in electrical works, installation of switches, light fixtures, transformers, meter base, electrical panel, Air Conditioning and Solar System Unit.	Internal Masonry Works & Finishes (Finish -Start- 4weeks)		Electrical Subcontractor, AC Subcontractor, Solar System Subcontractor
3.6	Plumbing Works	Rough in plumbing works, installation of wáter closets, face basins, faucets and sprinkler system.	Internal Masonry Works & Finishes		Plumbing Subcontractor
3.7	Installation of Doors & Windows	Making good to all openings and installing greenheart timber doors and window.	Internal Masonry Works & Finishes		Door & Window Subcontractor
3.8	Internal flooring	Preparation of floor, levelling floor, applying screed and installing nonskid tiles to floor that resembles timber.	Internal Masonry Works & Finishes	Installation of Appliances	Floor Finish Subcontractor
3.9	Installation of Appliances	Installation of all appliances – coffee maker, commercial cooker, refrigerator.	Internal flooring	Concrete Works	Skilled Interior Finisher Subcontractor, Skilled Appliance Subcontractor
3.10	Concrete Works	Preparation of surfaces, cement, aggregate & wáter mixture to concrete walkways around facility and parking facilities.	Installation of Appliances	Railings, Signage, Cannons & Monuments, Benches , Clean up & trimming of trees	Mason, Mason 2, Mason 3, Ready Mix Concrete Subcontractor
3.11	Railings	Installation of stainless steel railings to secure facility.	Concrete Works		Welding Subcontractor
3.12	Signage	Installation of graphical designs to identify and give direction, presents historical information and or warnings.	Concrete Works		Sign Designer Subcontractor
3.13	Cannons & Monuments	Restoration and repainting of cannons and monuments.	Concrete Works		Cannon & Monument Restorer Subcontractor

Activity ID No. /WBS ID	Activity Name	Description of Work	Predecessors	Successors	Responsibility
3.14	Benches	Construction of wooden benches from Green heart.	Concrete Works		Carpenter, Carpenter 2, Carpenter 3, Helper, Helper 2, Helper 3
3.15	Clean up & trimming of trees	Cleaning of site, trimming of trees and replaning of flowers and nutmeng beds.	Concrete Works	Final Walkthrough	Landscaping Subcontractor
4.0	**Post Construction**	**Phase after completion of works**			Project Manager, Project Team, Contractor, Designers, Stakeholders
4.1	Final Walkthrough	Project Manager, Project Sponsor, Stakeholders, Project Team, Consultants & Contractor visits the site for a inspection of all the works undertaken.	Clean up & trimming of trees	Snag list preparation & remedial works	Project Manager, Project Sponsor, Stakeholders, Architect, Civil Engineer & Contractor-Site Superintendent
4.2	Snag list preparation & remedial works	Defects list preparation and issued to the contractor to undertake remedial works.	Final Walkthrough	Certificate of Completion, As Built Drawings	Poject Manager, Stakeholder, Contractor - Site Superintendent
4.3	Certificate of Completion	Issuance of the Certificate of Completion	Snag list preparation & remedial works		Assistant Project Manager
4.4	As Built Drawings	As Built Drawings Prepared by Contractor and Issues to Client	Snag list preparation & remedial works	Final Account	Contractor-Site Superintendent
4.5	Final Account	Preparation of the projects final accounts documenting additions, omissions and project savings if any.	As Built Drawings	Hand over Ceremony	Project Manager ,Project Engineer
4.6	Hand over Ceremony	Restored Fort George is presented to the Stakholders in ceremony.	Final Account		Project Manager, Project Sponsor, Stakeholders ,

Chart 14 Project Milestones (Source: N. Andall, Author of Study)

Project Milestone	Target Date
Advertisement for Design Consultants Start	12/25/17
Contract Negoatation & Award for Design Consultants Completed	1/30/18
Conceptual Design Completed	3/2/18
Architectural & Landscaping Designs Completed	4/13/18
Bill of Quantities & Technical Specifications Completed	6/1/18
Physical Planning Permit Approval Completed	6/22/18
Selection of Contractor	7/6/18
Rampart & Defense Walls Restored	9/28/18
Roof Completed	8/3/18
Installation of Appliances	10/5/18
Cannons & Monuments Restored	11/16/18
Cleaning Up & Trimming of Trees	11/9/18
Final Walkthrough	11/19/18
Certificate of Completion Issues	12/4/18
Handover Ceremony	12/5/18

4.3.3 Sequence Activities

Sequencing the activities for GTEP is the third process of project time management and it is the process of “identifying and documenting relationships among the project activities”, (Project Management Institute, 2013, p.141). In order to define the logical sequence of works to obtain the greatest efficiency, the schedule management plan was used as an input into this process as it identifies the scheduling method and tools used which guides how the activities are sequences (Microsoft Project). The activity list was also used as an input which contains all scheduled activities required on the project, the activity attributes (input), defined predecessor and successor relationships and the milestones lists

which contain the scheduled dates for specific milestones which may influence how activities are sequenced. The project scope statement was also used as an input to sequence actvities.

One of the tools and techniques used to sequence activities was Precedence Diagramming method which “is a technique used for constructing a sequence model in which activities are represented by nodes and are graphically linked by one or more logical relationship” , (Project Management Institute, 2013, p.156). The Finish to Start logical relationship whereby “a succesor activity cannot start until a predecesor activity has finished”, was the most predomonant logical relationship used in this project as seen in the projects schedule,(Project Management Institute, 2013, p.156). Dependency determination was another tool & technique used into the processes as well as leads and lags. Leads were used to determine the amount of time during which a successor activity can be advanced with respect to a predecessor activity where as lags were used to determine the time where by a successor activity can be delayed with respect to a predecessor activity (Project Management Institute, 2013).

The output of sequence activity can be seen in Figure 5, which depicts the Project Schedule Network Diagram - a graphical representation of the logical relationships among the project schedule activities.

Grenada Tourism Enhancement Project Schedule Network Diagram

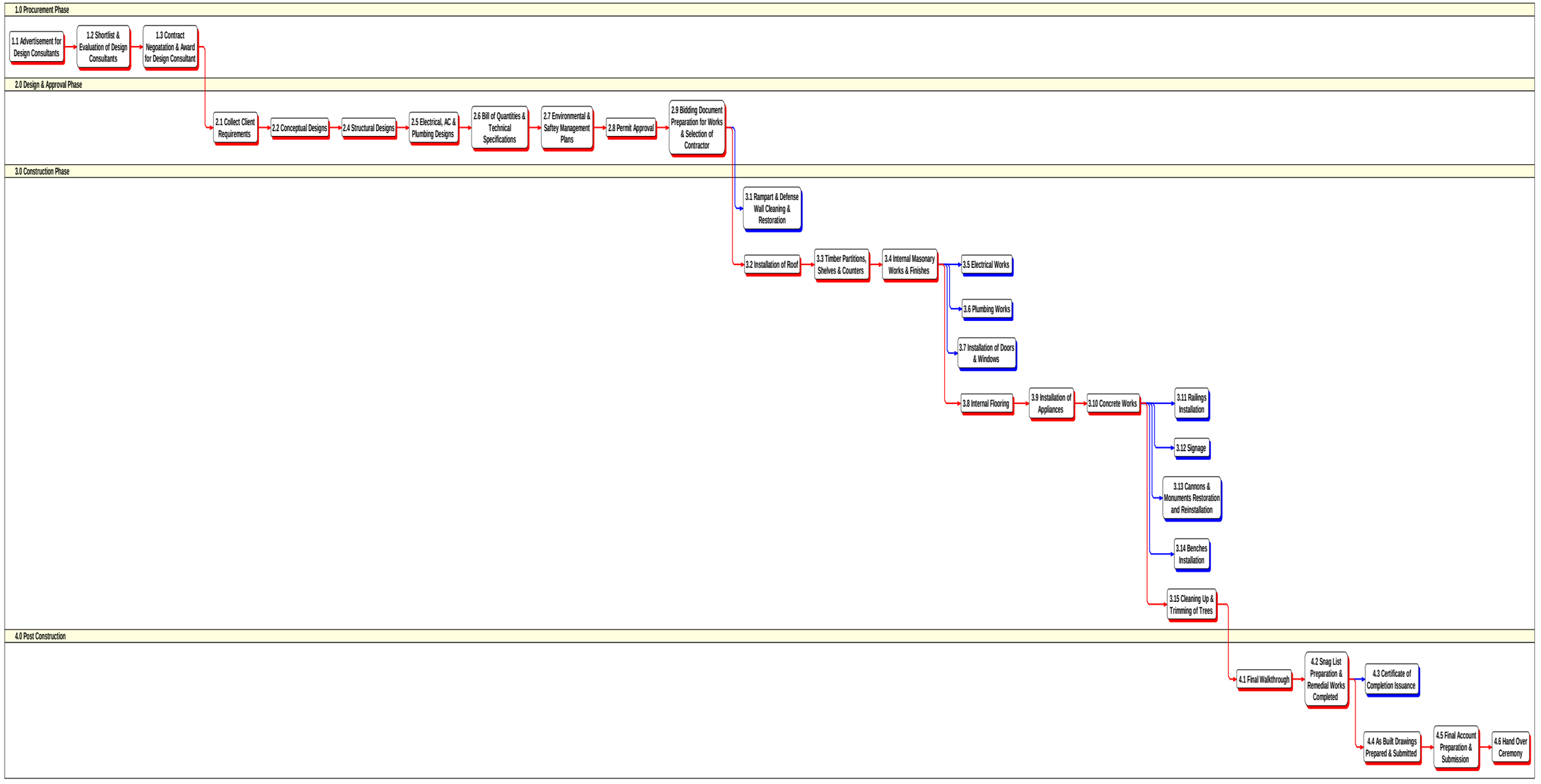


Figure 6 Schedule Network Diagram (Source: N. Andall, Author of Study)

4.3.4 Estimating Activity Resources

Estimating activity resources is the fourth process of project time management and it is the process of " estimating the type and quantities of material, human resources, equipment, or supplies required to perform each activity", (Project Management Institute, 2013, p.141). Given that risk events may trigger resource selection and availability, the risk register for GTEP was completed before estimating activity resources. Additional inputs used to estimate activity resources were the schedule management plan, activity list, activity attributes, resource calendar and activity cost estimates. The tools and techniques used were expert judgement and Microsoft Project Management Software in order to produce the activity resource requirements as seen in Chart 15 below.

4.3.5 Estimating Activity Durations

The fifth process of project time management is estimating activity durations which entails "estimating the number of work periods needed to complete individual activities with estimated resources", (Project Management Institute, 2013, p.141). The inputs used to estimate activity durations were the schedule management plan, activity lists & attributes, activity resource requirements, the resource calendars, project scope statement and the risk register. The tools and techniques used were expert judgement and analogous estimating in order to produce the activity duration estimates as seen in Chart 15.

4.3.6 Develop Schedule

The sixth process of project time management is develop schedule which is the "process of analyzing actvity sequence, durations, resource requirements and schedule constraints to create the project schedule model" (Project Management Institute, 2013, p.172). The inputs used to develop the project schedule were the schedule management plan, activity list, activity attributes, project schedule network diagrams, activity resource requirements, resource calendars, activity

duration estimates, project scope statement, risk register and project staff assignments. The tools & techniques applied were schedule network analysis, leads & lags and Microsoft Project Scheduling tool in order to develop the project schedule seen in Figure 6 below.

4.3.7 Control Schedule

The final process of project time management is control schedule which is the "process of monitoring the status of project activities to update project progress and manage changes to the schedule baseline to achieve the plan" (Project Management Institute, 2013, p.172). The inputs that will be used include the project management plan, project schedule, work performance data , project calendars, organizational process assest and schedule data. The tools and techniques that will be used for GTEP are performance reviews, project management software which provides the ability to track planned dates vs actual dates to report on variances to and progress made against schedule baseline. Tools and techniques such as leads and lags and schedule compression techniques such as fast tracking or crashing schedule will be used to bring delayed project activities back on track. Resource optimization techniques and performance reviews which entail trend analysis, critical path method and earned value management will be utilized.

In order to control the project schedule it will be reviewed and updated as necessary on a bi-weekly basis with actual start, actual finish, and completion percentages which will be provided by task owners. Essentially comparing the progress of the project against the scheduled baseline to determine if a particular project activity is ahead or behind the schedule. Only then the project manager can plan corrective actions to manage the changes to the baseline Schedule.

The project manager is responsible for holding bi-weekly schedule updates/reviews; determining impacts of schedule variances; submitting schedule change requests; and reporting schedule status in accordance with the project's

communications plan. The project team is responsible for participating in bi-weekly schedule updates/reviews; communicating any changes to actual start/finish dates to the project manager; and participating in schedule variance resolution activities as needed.

The project sponsor will maintain awareness of the project schedule status and review/approve any schedule change requests submitted by the project manager. As described earlier schedule compression techniques such as fast tracking or crashing schedule will be used to bring delayed project activities back on track.

Perform Integrated Change Control

Changes can be requested verbally by any stakeholder, team member or the Project manager himself, but must be recorded formally on a change request form and entered into the change management system, which may require information on estimated time and cost impacts. Change requests are subject to the process specified in the change management plan (see Appendix 5) also specified herein.

All change requests will be submitted to the Project Manager (who will evaluate the requests), if the request is verbally made the Project Manager will enter it onto a change request form. Once evaluated and accepted, the Project manager will submit the change request to the Change Control Board/Project Steering Committee. The Change Control Board will review, evaluate, approve or deny changes requested and record and communicate those decisions to the Project Manager. Once the Change Control Board has approved any changes it will be forwarded to Project Sponsor through the Project Manager for acceptance. Upon acceptance of the changes by the Project Sponsor, the Project Manager and his team will update all project documents and communicate the changes to all Stakeholders.

Chart 15 Activity Duration, Human & Material Resources Chart (Source: N. Andall, Author of Study)

Activity ID No. /WBS ID	Activity Name	Description of Work	Duration	Human Resources	Material Resources
0.0	**Construction of the Grenada Tourism Enhancement Project**	**Restoration of Fort George**	**14.4 months**	**Project Management Unit, Sponsor, Design Consultant, Contractor**	**Office Supplies, Equipment, Construction Materials & Equipment**
1.0	**Procurement Phase**	**Obtaining Design Services for Fort George**	**5.5wks**	**Project Management Unit & Sponsor**	**Office supplies**
1.1	Advertisement for Design Consultants	Requests for proposals are advertised through local newspapers for undertaking designs for Fort George .	4wks	Project Manager, Procurement Officer, Project Engineer,	Newspaper Computer Printer
1.2	Shortlist & Evaluation of Design Consultants	Once the request for proposals have been submitted, the Project manager and his team will evaluate the proposals to determine the most suitable design firm to undertake the works.	1wk	Project Manager, Procurement Officer, Project Engineer , Project Sponsor	Computer Printer
1.3	Contract Negotations & Award	Project Manager & Sponsor will negotiate with consultants on prices if required and award the contract.	2days	Project Manager, Procurement Officer, Project Engineer	Computer Printer
2.0	**Design & Approval Phase**	**Design Consulting Firm will collect requirements, undertake designs, prepare detailed scope of works and technical specifications.**	**30.25wks**	**Project Management Unit, Sponsor, Stakeholders, Design Consultant**	**Office supplies & documents**
2.1	Collect Client Requirements	Consultant will request all requirement documentation and Project Charter to inform the designs and meet with stakeholders to asertain needs and vision for project.	2wks	Assistant Project Manager, Design Firm Architect, Stakeholders	Computer Printer Project Charter
2.2	Conceptual Design	The design firm will complete preliminary conceptual designs for approval before commencing final designs.	3wks	Design Firm Architect, Project Manager, Project Engineer, Stakeholders	Computer AutoCad Plotter
2.3	Architectural & Landscaping Designs	Design firm will undertake Architecural Drawings (graphical visualization) & Landscaping Drawings to inform the design and guide the contractor.	6wks	Design Firm - Architect	Computer AutoCad Plotter

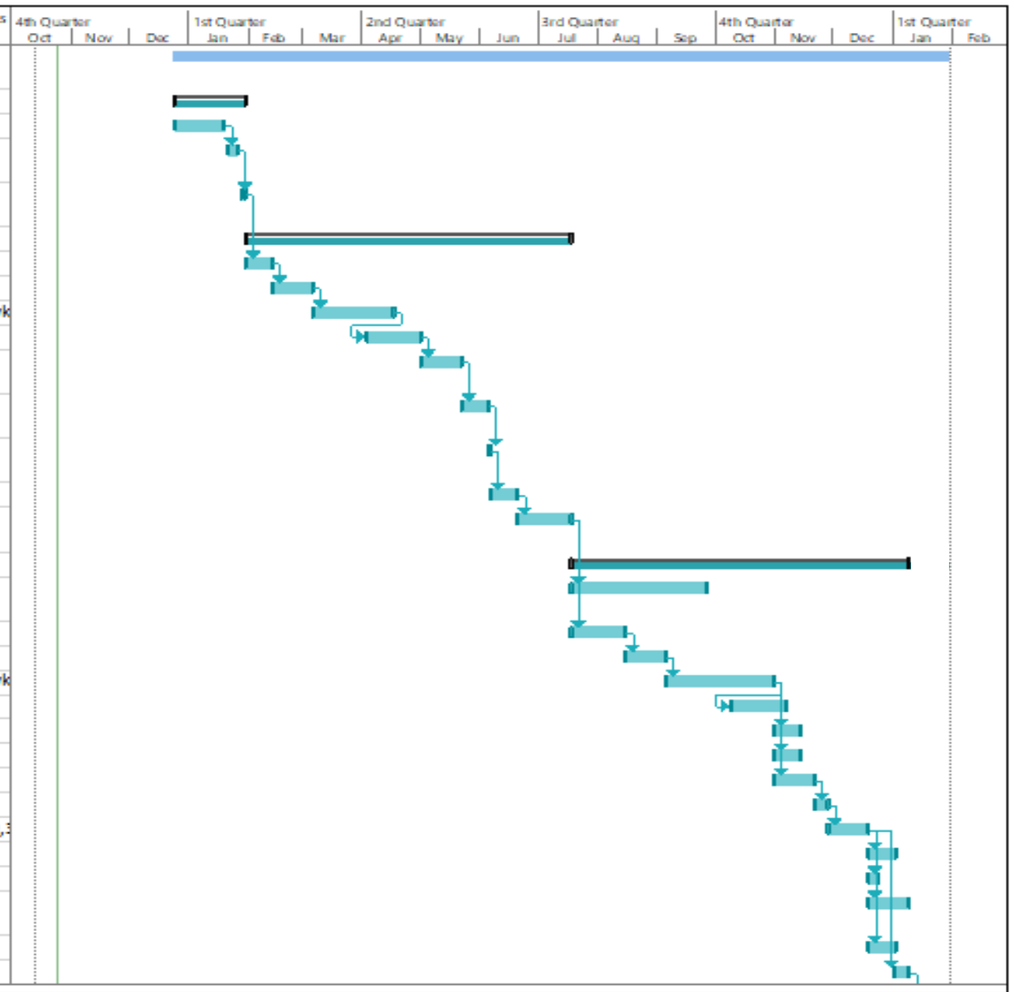
Activity ID No. /WBS ID	Activity Name	Description of Work	Duration	Human Resources	Material Resources
2.4	Structural Designs	Design Firm will undertake structural designs and Construction Drawings to detail the structural elements of Fort George.	4wks	Design Firm – Civil Engineer & Draftsman	Computer STADD Software ASCE Standard
2.5	Electrical, Airconditioning & Plumbing Designs	Design firm will undertake electrical, airconditioning & plumbing designs and construction drawings to guide contractor.	3wks	Design Firm- Electrical Engineer, Sanitary Engineer, AC Subcontractor	Computer AutoCad Plotter
2.6	Bill of Quantities & Technical Specifications	Preparation of detailed scope of works (descriptions, quantities, rates) based on designs and technical specifications (set of requirements) for all components of the design.	2wks	Design Firm – Quantity Surveyor, Architect, Civil Engineer, - Electrical Engineer, Sanitary Engineer	ASCE Standard Computer Printer
2.7	Environmental & Saftey Management Plan	Recommended environmental and hazard mitigation and monitoring measures.	0.25wk	Design Firm- Civil Engineer	Computer Printer
2.8	Permit Approval	Applying to the Physical Planning Unit for approval to build.	2wks	Design Firm – Civil Engineer	Computer Printer
2.9	Bidding Documents for Works & Selection of Contractor	Preparation of documentation which will include advertisement or invitation to bidders, instructions to bidders, bid form, form of contract, forms of bonds, conditions of contract, specifications, drawings, addenda, and any other information needed to completely describe the work so that constructors can adequately prepare proposals or bids for the owner's consideration.	4wks	Project Manager, Procurement Officer, Project Engineer	Computer Printer
3.0	**Construction Phase**	**Execution of the physical works**	**31.25wks**	**Project Management Unit, Contractor Staff**	**Construction Equipment**
3.1	Rampart & Defense Walls cleaning & restoration.	Removal of all weeds, shrubs and obstructions from Rampart and Defense walls.	10wks	Mason, Carpenter, Helper, Foreman, Contractor-Site Superintendent	Trowel Pointer Sponge Cement Bucket Wheel Barrow Mortar & Water

Activity ID No. /WBS ID	Activity Name	Description of Work	Duration	Human Resources	Material Resources
3.2	Installation of Roof	Installation of timber elements (rafters, ridge board, laths, plywood), water proofing membrane, fish scale clay tile finish and guttering to roof.	4wks	Carpenter 2, Helper 2, Foreman 2, Roof Subcontractor	Scaffolding, Lumber, plywood, Clay tiles, Torch on Asphalt, scews, guttering
3.3	Timber partitions, shelves & counters	Lumber installed to partition rooms of the Coffee Shop, Gift Shop & Intrepretation Center. Lumber used to counters and shelves in preparation of appliances.	3wks	Carpenter 3, Helper 3, Skilled Interior Finisher	Lumber,saw, carpenter
3.4	Internal Masonry Works & Finishes	Seal cracks, repointing with mortar (cement, wáter & sand) to make new. Decorative Stone work to partitions.	8wks	Mason 3, Helper 4, Skilled Interior Finisher Subcontractor, Painter	Cement Bucket Wheel Barrow Mortar & Water
3.5	Electrical Works	Rough in electrical works, installation of switches, light fixtures, transformers, meter base, electrcial panel, Air Conditioning and Solar System Unit.	4wks	Electrical Subcontractor, AC Subcontractor, Solar System Subcontractor	switches, light fixtures, transformers, meter base, electrcial panel and Solar System Unit, electrician
3.6	Plumbing Works	Rough in plumbing works, installation of water closets, face basins, faucets and sprinkler system.	2wks	Plumbing Subcontractor	Wáter closets, face basins, faucets and sprinkler system, plumber
3.7	Installation of Doors & Windows	Making good to all openings and installing Greenheart timber doors and window.	2wks	Door & Window Subcontractor	Windows & doors
3.8	Internal flooring	Preparation of floor, levelling floor, applying screed and installing nonskid tiles to floor that resembles timber.	3wks	Floor Finish Subcontractor	Tiler, tiles, tile cutter, spacers, grout
3.9	Installation of Appliances	Installation of all appliances – coffee maker, commercial cooker, refrigerator.	1wks	Skilled Interior Finisher Subcontractor, Skilled Appliance Subcontractor	coffee maker, commercial cooker, refrigerator.
3.10	Concrete Works	Preparation of surfaces, cement, aggregate & water mixture to concrete walkways around facility and parking facilities.	3wks	Mason, Mason 2, Mason 3, Ready Mix Concrete Subcontractor	Concrete, BRC, formwork, trowel, broom
3.11	Railings	Installation of stainless steel railings to secure facility.	2wks	Welding Subcontractor	Stainless steel pipes, welder, non corrosive pipes

Activity ID No. /WBS ID	Activity Name	Description of Work	Duration	Human Resources	Material Resources
3.12	Signage	Installation of graphical designs to identify and give direction, presents historical information and or warnings.	0.75wks	Sign Designer Subcontractor	Sign Designer Equipment
3.13	Cannons & Monuments	Restoration and repainting of cannons and monuments.	3wks	Cannon & Monument Restorer Subcontractor	Welding machine, welding rods, Paint,
3.14	Benches	Construction of wooden benches from green heart.	2wks	Carpenter, Carpenter 2, Carpenter 3, Helper, Helper 2, Helper 3	Lumber, Bench Saw, Paint
3.15	Clean up & trimming of trees	Cleaning of site, trimming of trees and replaning of flowers and nutmeng beds.	1.5wks	Landscaping Subcontractor	Lawnmow, snippers, saw, rakes, buckets, wheelborrow, sheers,
4.0	**Post Construction**	**Phase after completion of works**	**3.50wks**	**Project Manager, Project Team, Contractor, Designers, Stakeholders**	**Office supplies and construction equipment**
4.1	Final Walkthrough	Project Manager, Project Sponsor, Stakeholders, Project Team, Consultants & Contractor visits the site for a inspection of all the works undertaken.	0.25wk	Project Manager, Project Sponsor, Stakeholders, Architect, Civil Engineer & Contractor-Site Superintendent	Notebook, pen,camera
4.2	Snag list preparation & remedial works	Defects list preparation and issued to the contractor to undertake remedial works.	2wks	Poject Manager, Stakeholder, Contractor -Site Superintendent	Computer Printer
4.3	Certificate of Completion	Issuance of the Certificate of Completion	0.25wk	Assistant Project Manager	Computer Printer
4.4	As Built Drawings	As Built Drawings Prepared by Contractor and Issues to Client	0.50wk	Contractor-Site Superintendent	Computer Printer
4.5	Final Account	Preparation of the projects final accounts documenting additions, omissions and project savings if any.	0.25wk	Project Manager ,Project Engineer ,Project Accountant	Computer Printer
4.6	Hand over Ceremony	Restored Fort George is presented to the Stakholders in ceremony.	0.25wk	Project Manager, Project Sponsor, Stakeholders ,	Refreshments, Ribbon, Scissors

Grenada Tourism Enhancement Project Schedule

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors
1	0.0	**Construction of the Grenada Tourism Enhancement Project**	14.4 mons	Mon 12/25/17	Wed 1/30/19		
2	**1.0**	**Procurement Phase**	**27 days**	**Mon 12/25/17**	**Tue 1/30/18**		
3	1.1	Advertisement for Design Consultants	4 wks	Mon 12/25/17	Fri 1/19/18		4
4	1.2	Shortlist & Evaluation of Design Consultants	1 wk	Mon 1/22/18	Fri 1/26/18	3	5
5	1.3	Contract Negotation & Award for Design Consultant	2 days	Mon 1/29/18	Tue 1/30/18	4	7
6	**2.0**	**Design & Approval Phase**	**121 days**	**Wed 1/31/18**	**Wed 7/18/18**		
7	2.1	Collect Client Requirements	2 wks	Wed 1/31/18	Tue 2/13/18	5	8
8	2.2	Conceptual Design	3 wks	Wed 2/14/18	Tue 3/6/18	7	9
9	2.3	Architectural & Landscaping Designs	6 wks	Wed 3/7/18	Tue 4/17/18	8	10FS-2 wk
10	2.4	Structural Designs	4 wks	Wed 4/4/18	Tue 5/1/18	9FS-2 wks	11
11	2.5	Electrical, Air Conditioning & Plumbing Designs	3 wks	Wed 5/2/18	Tue 5/22/18	10	12
12	2.6	Bill of Quantities & Technical Specifications	2 wks	Wed 5/23/18	Tue 6/5/18	11	13
13	2.7	Environmental & Saftey Management Plans	1 day	Wed 6/6/18	Wed 6/6/18	12	14
14	2.8	Permit Approval	2 wks	Thu 6/7/18	Wed 6/20/18	13	15
15	2.9	Bidding Document Preparation for Works & Selection of Contractor	4 wks	Thu 6/21/18	Wed 7/18/18	14	17,18
16	**3.0**	**Construction Phase**	**125 days**	**Thu 7/19/18**	**Wed 1/9/19**		
17	3.1	Rampart & Defense Wall Cleaning & Restoration	10 wks	Thu 7/19/18	Wed 9/26/18	15	
18	3.2	Installation of Roof	4 wks	Thu 7/19/18	Wed 8/15/18	15	19
19	3.3	Timber Partitions, Shelves & Counters	3 wks	Thu 8/16/18	Wed 9/5/18	18	20
20	3.4	Internal Masonary Works & Finishes	8 wks	Thu 9/6/18	Wed 10/31/18	19	21FS-4 wk
21	3.5	Electrical Works	4 wks	Wed 10/10/18	Tue 11/6/18	20FS-4 wks	
22	3.6	Plumbing Works	2 wks	Thu 11/1/18	Wed 11/14/18	20	
23	3.7	Installation of Doors & Windows	2 wks	Thu 11/1/18	Wed 11/14/18	20	
24	3.8	Internal Flooring	3 wks	Thu 11/1/18	Wed 11/21/18	20	25
25	3.9	Installation of Appliances	1 wk	Thu 11/22/18	Wed 11/28/18	24	26
26	3.10	Concrete Works	3 wks	Thu 11/29/18	Wed 12/19/18	25	27,28,29,3
27	3.11	Railings Installation	2 wks	Thu 12/20/18	Wed 1/2/19	26	
28	3.12	Signage	3 days	Thu 12/20/18	Mon 12/24/18	26	
29	3.13	Cannons & Monuments Restoration and reinstallation	3 wks	Thu 12/20/18	Wed 1/9/19	26	
30	3.14	Benches Installation	2 wks	Thu 12/20/18	Wed 1/2/19	26	
31	3.15	Cleaning Up & Trimming of Trees	6 days	Wed 1/2/19	Wed 1/9/19	26	33



Project: Project1
Date: Wed 10/25/17

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Progress
Manual Progress

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors
32	**4.0**	**Post Construction Phase**	**15 days**	**Thu 1/10/19**	**Wed 1/30/19**		
33	4.1	Final Walk Through	1 day	Thu 1/10/19	Thu 1/10/19	31	34
34	4.2	Snag List Preparation & Remedial Works C	2 wks	Fri 1/11/19	Thu 1/24/19	33	35,36
35	4.3	Certificate of Completion Issuance	1 day	Fri 1/25/19	Fri 1/25/19	34	
36	4.4	As Built Drawings Prepared & Submitted	2 days	Fri 1/25/19	Mon 1/28/19	34	37
37	4.5	Final Account Preparation & Submission	1 day	Tue 1/29/19	Tue 1/29/19	36	38
38	4.6	Hand Over Ceremony	1 day	Wed 1/30/19	Wed 1/30/19	37	

Project: Project1
Date: Wed 10/25/17

Task | Project Summary | Manual Task | Start only | Deadline
Split | Inactive Task | Duration-only | Finish only | Progress
Milestone | Inactive Milestone | Manual Summary Rollup | External Tasks | Manual Progress
Summary | Inactive Summary | Manual Summary | External Milestone

Page 2

Figure 7 GTEP Project Schedule (Source: N. Andall, Author of Study)

4.4 Project Cost Management

Project Cost Management includes " the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget", (Project Management Institute, 2013, p.193). Given that only initiating and planning processes will be explored for the development of this FGP, the three planning process groups of project cost management have been developed below.

4.4.1 Plan Cost Management

The first cost management processes that will be explored is Plan Cost Management which is the "process that establishes the policies, procedures, and documentation for planning, managing, expending, and controlling project costs", (Project Management Institute, 2013, p.193). In order to develop a cost management plan seen for the Grenada Tourism Enhancement Project, the project's charter was used as an input along with the tools and techniques for expert judgement, analytical techniques and meetings. The data gathered was examined and applied in a systematic way in order to create a cost management plan with the use of a modified template as indicated in Figure 6 below. The cost management plan contains its purpose, the project's cost management approach, how to measure project costs,reporting format, cost variance response process, cost change control process and the project budget.

GRENADA TOURISM ENHANCEMENT PROJECT COST MANAGEMENT PLAN

Introduction

This Cost Management Plan clearly defines how the costs on a project will be managed throughout the project's lifecycle. It sets the format and standards by which the project costs are measured, reported and controlled.

The Project Manager will be responsible for managing and reporting on the project's cost throughout the duration of the project. During the monthly project status meeting, the Project Manager will meet with management to present and review the project's cost performance for the preceding month. Performance will be measured using earned value. The Project Manager is responsible for accounting for cost deviations and presenting the Project Sponsor with options for getting the project back on budget. The Project Sponsor has the authority to make changes to the project to bring it back within budget.

Cost Management Approach

The costs for this project will be managed at the second level of the Work Breakdown Structure (WBS). Control Accounts (CA) will be created at this level to track costs. Earned Value calculations for the CA's will measure and manage the financial performance of the project. Although activity cost estimates are detailed in the work packages, the level of accuracy for cost management is at the second level of the WBS. Credit for work will be assigned at the work package level. Work started on work packages will grant that work package with 50% credit; whereas, the remaining 50% is credited upon completion of all work defined in that work package. Costs may be rounded to the nearest dollar and work hours rounded to the nearest whole hour.

Cost variances of +/- 0.1 in the cost and schedule performance indexes will change the status of the cost to cautionary; as such, those values will be changed to yellow in the project status reports. Cost variances of +/- 0.2 in the cost and schedule

performance indexes will change the status of the cost to an alert stage; as such, those values will be changed to red in the project status reports. This will require corrective action from the Project Manager in order to bring the cost and/or schedule performance indexes below the alert level. Corrective actions will require a project change request and be must approved by the Project Sponsor before it can become within the scope of the project.

Perform Integrated Change Control/ Cost Change Control Process

Changes can be requested verbally by any stakeholder, team member or the Project manager himself, but must be recorded formally on a change request form and entered into the change management system, which may require information on estimated time and cost impacts. Change requests are subject to the process specified in the change management plan (see Appendix 5) also specified herein.

All change requests will be submitted to the Project Manager (who will evaluate the requests), if the request is verbally made the Project Manager will enter it onto a change request form. Once evaluated and accepted, the Project manager will submit the change request to the Change Control Board/Project Steering Committee. The Change Control Board will review, evaluate, approve or deny changes requested and record and communicate those decisions to the Project Manager. Once the Change Control Board has approved any changes it will be forwarded to Project Sponsor through the Project Manager for acceptance. Upon acceptance of the changes by the Project Sponsor, the Project Manager and his team will update all project documents and communicate the changes to all Stakeholders.

Measuring Project Costs

Performance of the project will be measured using Earned Value Management. The following four Earned Value metrics will be used to measure to project's cost performance:

- Schedule Variance (SV)

- Cost Variance (CV)
- Schedule Performance Index (SPI)
- Cost Performance Index (CPI)

If the Schedule Performance Index or Cost Performance Index has a variance of between 0.1 and 0.2. the Project Manager must report the reason for the exception. If the SPI or CPI has a variance of greater than 0.2, the Project Manager must report the reason for the exception and provide management a detailed corrective plan to bring the project's performance back to acceptable levels.

Performance Measure	Yellow	Red
Schedule Performance Index (SPI)	Between 0.9 and 0.8 or Between 1.1 or 1.2	Less than 0.8 or Greater than 1.2
Cost Performance Index (CPI)	Between 0.9 and 0.8 or Between 1.1 or 1.2	Less than 0.8 or Greater than 1.2

Reporting Format

Reporting for cost management will be included in the monthly project status report. The Monthly Project Status Report will include a section labeled, "Cost Management". This section will contain the Earned Value Metrics identified in the previous section. All cost variances outside of the thresholds identified in this Cost Management Plan will be reported on including any corrective actions which are planned. Change Requests which are triggered based upon project cost overruns will be identified and tracked in this report.

Cost Variance Response Process

The Control Thresholds for this project is a CPI or SPI of less than 0.8 or greater than 1.2. If the project reaches one of these Control Thresholds, a Cost Variance Corrective Action Plan is required. The Project Manager will present the Project Sponsor with options for corrective actions within five business days from when the cost variance is first reported. Within three business days from when the Project

Sponsor selects a corrective action option, the Project Manager will present the Project Sponsor with a formal Cost Variance Corrective Action Plan. The Cost Variance Corrective Action Plan will detail the actions necessary to bring the project back within budget and the means by which the effectiveness of the actions in the plan will be measured. Upon acceptance of the Cost Variance Corrective Action Plan, it will become a part of the project plan and the project will be updated to reflect the corrective actions.

Authorization

Approved by the Project Sponsor:

_____ Date :_____
International Bank for Reconstruction and Development

Piscope, M. (2017) . Cost Management Plan. Retrieved on October 17, 2017 from http://www.projectmanagementdocs.com/project-planning-templates/cost-management-plan.html#axzz4vjPvLfFl

4.4.2 Estimate Cost

The second process of project cost management is to estimate project costs and this is the process of “developing an approximation of the monetary resources needed to complete project activities”, (Project Management Institute, 2013, p.200). The input used to estimate the project’s costs were the cost management plan, human resource management plan, project schedule, scope statement/scope baseline, the risk register and most importantly organizational process assets. The tools and techniques used to produce the activity cost estimates were analogous estimating given the limited available data and reserve analysis seen in Chart 16 below.

In order to determine the labour and material costs for each activity, the tool and technique of analogous estimating was applied. This tool was used because it relies on the actual cost of previous similar projects and given that GTEP has

limited amount of details available (material quantities among others) it was deemed the most apporopriate tool, as the Project Coordination Unit has undertaken projects of similar scope, size, weight and complexity.

Reserve analysis was then undertaken to determine the contingency and management reserves. Contingency reserves (known-unknowns) are the budget within the cost baseline that are allocated for identified risks in the risk register for which mitigation reponses have been developed. The main inputs used in developing the contingency reserve were the risk register and the quantitative analysis technique, Expected Monetary Value (EMV) analysis, to calculate the cost of each risk. In order to calculate the EMV, the two inputs used to were the probability of a risk occurring (expressed as a percentage) and obtained from qualititative analysis and the impact of the risk occurring (expressed in some monetary measure), seen in the Risk Register on page 144. The impact represented in the form of monetary value was calculated based on the activities that would need to be done to recover which was taken from the breakdowns in the activities cost estimates. The summation of all individual activity contingency reserves yielded the total contingency reserve.

On the other hand management reserves (unknown-unknowns) are the amount in the project budget withheld for management control purposes and are reseved for unforseen work that is within the scope of the project. This amount is usually not an estimated amount but based on the organization policies and or complexity of the project. Given that GTEP is a relatively straight forward project, a percentage of 10% was deemed appropriate as projects of similar nature have seldom expended their management reserves. The management reserve for GTEP was not included in the cost baseline (project cost estimate plus contingency reserve) but in the project overall Budget (cost baseline plus management reserve). All activity costs can be seen in Chart 16 below.

4.4.3 Determine Budget

The third process of project cost management is to determine the project's budget. According to the Project Management Institute, the determine Budget is the "process of aggregating the estimated costs of individual activities or work packages to establish the authorized baseline", (Project Management Institute, 2013, p.193).

The inputs used to determine the budget for GTEP were: the cost management plan, scope baseline, activity cost estimates, project schedule, resource calendar and the risk register. The tools and techiques applied were cost aggregation, reserve analysis and expert judgement, in order to produce the cost baseline seen in Chart 17. The cost baseline is the approved versión of the project budget excluding any management reserves which can only be changed through formal change control procedures.

Project Budget

The budget for this project is detailed below, which is the cost baseline plus the management reserves. The cost baseline was obtained from adding the cost for all project activities (work packages) see Chart 16 plus the contingency reserve. The contingency reserves were obtained from the quantitative analysis and is throrughtly explained in quantitative analysis 4.8.4 and estimate costs section 4.4.3.

Cost Baseline = Project Cost Estimate (work packages) + Contingency Reserves

= 2,175,380.00 + 45,514.00 = ECD $ 2,220,894.00

Management Reserves = 10% of total project cost = ECD $ 217,538.00

Project Budget: Cost Baseline + Management Reserve = ECD $ 2,438,432.00

Chart 16 Activity Cost Estimate (Source: N. Andall, Author of Study)

Activity ID No. /WBS ID	Activity Name	Description of Work	Duration	*Labour Cost $*	*Material Cost $*	*Sub-totals $*	Contingency Reserve	Human Resources	Material Resources
0.0	**Construction of the Grenada Tourism Enhancement Project**	**Restoration of Fort George**	**14.4 months**	**$247,432.00**	**$1,927,948.00**	**$2,175,380.00**	**$45,514.00**	**Project Management Unit, Sponsor, Design Consultant, Contractor**	**Office Supplies, Equipment, Construction Materials & Equipmet**
1.0	**Procurement Phase**	**Obtaining Design Services for Fort George**	**5.5wks**	**$13,824.00**	**$300.00**	**$14,124.00**	**$0.0**	**Project Management Unit & Sponsor**	**Office supplies**
1.1	Advertisement for Design Consultants	Requests for proposals are advertised through local newspapers for undertaking Designs for Fort George .	4wks	$10,240.00	$100.00	$10,340.00		Project Manager, Procurement Officer, Project Engineer,	Newspaper Computer Printer
1.2	Shortlist & Evaluation of Design Consultants	Once the request for proposals have been submitted, the Project Manager and his team will evaluate the proposals to determine the most suitable design firm to undertake the Works.	1wk	$2,560.00	$100.00	$2,660.00		Project Manager, Procurement Officer, Project Engineer , Project Sponsor	Computer Printer
1.3	Contract Negotations & Award	Project Manager & Sponsor will negotiate with consultants on prices if required and award the contract.	2days	$1,024.00	$100.00	$1,124.00		Project Manager, Procurement Officer, Project Engineer	Computer Printer
2.0	**Design & Approval Phase**	**Design Consulting Firm will collect requirements, undertake designs, prepare detailed scope of works and technical**	**30.25wks**	**$89,120.00**	**$22,980.00**	**$112,100.00**	**$18,890.00**	**Project Management Unit, Sponsor, Stakeholders, Design Consultant**	**Office supplies & documents**

Activity ID No. /WBS ID	Activity Name	Description of Work	Duration	*Labour Cost $*	*Material Cost $*	*Sub-totals $*	Contingency Reserve	Human Resources	Material Resources
		specifications.							
2.1	Collect Client Requirements	Consultant will request all requirement documentation and Project Charter to inform the Designs and meet with stakeholders to asertain needs and vision for project.	2wks	$5,360.00	$160.00	$5,520.00		Assistant Project Manager, Design Firm Architect, Stakeholders	Computer Printer Project Charter
2.2	Conceptual Design	The Design firm will complete preliminary conceptual designs for approval before commencing final designs.	3wks	$11,880.00	$1,000.00	$12,880.00		Design Firm Architect, Project Manager, Project Engineer, Stakeholders	Computer AutoCad Plotter
2.3	Architectural & Landscaping Designs	Design Firm will undertake Architecural Drawings (graphical visualization) & Landscaping Drawings to inform the design and guide the contractor.	6wks	$10,800.00	$4,200.00	15,000.00		Design Firm - Architect	Computer AutoCad Plotter
2.4	Structural Designs	Design Firm will undertake Structural Designs and Construction Drawings to detail the structural elements of Fort George.	4wks	$12,160.00	$9,000.00	$21,160.00		Design Firm – Civil Engineer & Draftsman	Computer STADD Software ASCE Standard
2.5	Electrical, Airconditioning & Plumbing Designs	Design Firm will undertake Electrical, Airconditioning & Plumbing Designs and Construction Drawings to guide contractor.	3wks	$15,960.00	$5,000.00	$20,960.00		Design Firm- Electrical Engineer, Sanitary Engineer, AC Subcontractor	Computer AutoCad Plotter
2.6	Bill of Quantities & Technical Specifications	Preparation of detailed scope of works (descriptions, quantities, rates) based on designs and technical	2wks	$17,440.00	$1,000.00	$18,440.00		Design Firm – Quantity Surveyor, Architect, Civil Engineer, - Electrical Engineer, Sanitary	ASCE Standard Computer Printer

Activity ID No. /WBS ID	Activity Name	Description of Work	Duration	*Labour Cost $*	*Material Cost $*	*Sub-totals $*	Contingency Reserve	Human Resources	Material Resources
		specifications (set of requirements) for all components of the design.						Engineer	
2.7	Environmental & Saftey Management Plan	Recommended environmental and hazard mitigation and monitoring measures.	0.25wk	$480.00	$520.00	$1000.00		Design Firm- Civil Engineer	Computer Printer
2.8	Permit Approval	Applying to the Physical Planning Unit for approval to build.	2wks	$4,800.00	$100.00	$4900.00		Design Firm – Civil Engineer	Computer Printer
2.9	Bidding Documents for Works & Selection of Contractor	Preparation of documentation which will include advertisement or invitation to bidders, instructions to bidders, bid form, form of contract, forms of bonds, conditions of contract, specifications, drawings, addenda, and any other information needed to completely describe the work so that constructors can adequately prepare proposals or bids for the owner's consideration.	4wks	$10,240.00	$2000.00	$12,240.00		Project Manager, Procurement Officer, Project Engineer	Computer Printer
3.0	**Construction Phase**	**Execution of the physical works**	**31.25wks**	**$137,032.00**	**$1,902,968.00**	**$2,040,000.00**	**$26,624.00**	**Project Management Unit, Contractor Staff**	**Construction Equipment**
3.1	Rampart & Defense Walls cleaning & restoration.	Removal of all weeds, shrubs and obstructions from Rampart and Defense walls.	10wks	$50,000.00	$500,00.00	$550,000.00		Mason, Carpenter, Helper, Foreman, Contractor-Site Superintendent	Trowel Pointer Sponge Cement Bucket Wheel Barrow Mortar & Water

Activity ID No. /WBS ID	Activity Name	Description of Work	Duration	*Labour Cost $*	*Material Cost $*	*Sub-totals $*	Contingency Reserve	Human Resources	Material Resources
3.2	Installation of Roof	Installation of timber elements (rafters, ridge board, laths, plywood), water proofing membrane, fish scale clay tile finish and guttering to roof.	4wks	$10,880.00	$239,120.00	$250,000.00		Carpenter 2, Helper 2, Foreman 2, Roof Subcontractor	Scaffolding, Lumber, plywood, Clay tiles, Torch on Asphalt, scews, guttering
3.3	Timber partitions, shelves & counters	Lumber installed to partition rooms of the Coffee Shoop, Gift Shop & Intrepretation Center. Lumber used to counters and shelves in preparation of appliances.	3wks	$4,800.00	$195,200.00	$200,000.00		Carpenter 3, Helper 3, Skilled Interior Finisher	Lumber,saw, carpenter
3.4	Internal Masonary Works & Finishes	Seal cracks, repointing with mortar (cement, wáter & sand) to make new. Decorative Stone work to partitions.	8wks	$30,080.00	$229,920.00	$260,000.00		Mason 3, Helper 4, Skilled Interior Finisher Subcontractor, Painter	Cement Bucket Wheel Barrow Mortar & Water
3.5	Electrical Works	Rough in electrical works, installation of switches, light fixtures, transformers, meter base, electrical panel, Air Conditioning and Solar System Unit.	4wks	$11,360.00	$388,640.00	$400,000.00		Electrical Subcontractor, AC Subcontractor, Solar System Subcontractor	switches, light fixtures, transformers, meter base, electrcial panel and Solar System Unit, electrician
3.6	Plumbing Works	Rough in plumbing works, installation of water closets, face basins, faucets and sprinkler system.	2wks	$2,000.00	$78,000.00	$80,000.00		Plumbing Subcontractor	Water closets, face basins, faucets and sprinkler system,

Activity ID No. /WBS ID	Activity Name	Description of Work	Duration	*Labour Cost $*	*Material Cost $*	*Sub-totals $*	Contingency Reserve	Human Resources	Material Resources
									plumber
3.7	Installation of Doors & Windows	Making good to all openings and installing greenheart timber doors and window.	2wks	$2,240.00	$167,760.00	$170,000.00		Door & Window Subcontractor	Windows & doors
3.8	Internal flooring	Preparation of floor, levelling floor, applying screed and installing nonskid tiles to floor that resembles timber.	3wks	$3,120.00	$96,880.00	$100,000.00		Floor Finish Subcontractor	Tiler, tiles, tile cutter, spacers, grout
3.9	Installation of Appliances	Installation of all appliances – coffee maker, commercial cooker, refrigerator.	1wks	$1,280.00	$58,720.00	$60,000.00		Skilled Interior Finisher Subcontractor, Skilled Appliance Subcontractor	coffee maker, commercial cooker, refrigerator.
3.10	Concrete Works	Preparation of surfaces, cement, aggregate & water mixture to concrete walkways around facility and parking facilities.	3wks	$9,000.00	$191,000.00	$200,000.00		Mason, Mason 2, Mason 3, Ready Mix Concrete Subcontractor	Concrete, BRC, formwork, trowel, broom
3.11	Railings	Installation of stainless steel railings to secure facility.	2wks	$2,640.00	$92,360.00	$95,000.00		Welding Subcontractor	Stainless steel pipes, welder, non corrosive pipes
3.12	Signage	Installation of graphical designs to identify and give direction, presents historical information and or warnings.	0.75wks	$792.00	$24,208.00	$25,000.00		Sign Designer Subcontractor	Sign Designer Equipment
3.13	Cannons & Monuments	Restoration and repainting of cannons and monuments.	3wks	$4,200.00	$75,800.00	$80,000.00		Cannon & Monument Restorer Subcontractor	Welding machine, welding rods,

Activity ID No. /WBS ID	Activity Name	Description of Work	Duration	*Labour Cost $*	*Material Cost $*	*Sub-totals $*	Contingency Reserve	Human Resources	Material Resources
									Paint,
3.14	Benches	Construction of wooden benches from green heart.	2wks	$3,200.00	$46,800.00	$50,000.00		Carpenter, Carpenter 2, Carpenter 3, Helper, Helper 2, Helper 3	Lumber, Bench Saw, Paint
3.15	Clean up & trimming of trees	Cleaning of site, trimming of trees and replanting of flowers and nutmeg beds.	1.5wks	$1,440.00	$18,560.00	$20,000.00		Landscaping Subcontractor	Lawnmow, snippers, saw, rakes, buckets, wheelborrow, sheers,
4.0	**Post Construction**	**Phase after completion of works**	**3.50wks**	**$7,376.00**	**$1,700.00**	**$9076.00**		**Project Manager, Project Team, Contractor, Designers, Stakeholders**	**Office supplies and construction equipment**
4.1	Final Walkthrough	Project Manager, Project Sponsor, Stakeholders, Project Team, Consultants & Contractor visit the site for a inspection of all the works undertaken.	0.25wk	$1,512.00	$100.00	$1,612.00		Project Manager, Project Sponsor, Stakeholders, Architect, Civil Engineer & Contractor-Site Superintendent	Notebook, pen,camera
4.2	Snag list preparation & remedial works	Defects list preparation and issued to the contractor to undertake remedial works.	2wks	$4,400.00	$100.00	$4,500.00		Poject Manager, Stakeholder, Contractor -Site Superintendent	Computer Printer
4.3	Certificate of Completion	Issuance of the Certificate of Completion	0.25wk	$176.00	$100.00	$276.00		Assistant Project Manager	Computer Printer
4.4	As Built Drawings	As Built Drawings Prepared by Contractor and Issued to Client	0.50wk	$480.00	$1000.00	$1480.00		Contractor-Site Superintendent	Computer Printer

Activity ID No. /WBS ID	Activity Name	Description of Work	Duration	*Labour Cost $*	*Material Cost $*	*Sub-totals $*	Contingency Reserve	Human Resources	Material Resources
4.5	Final Account	Preparation of the projects final accounts documenting additions, omissions and project savings if any.	0.25wk	$608.00	$100.00	$708.00		Project Manager ,Project Engineer ,Project Accountant	Computer Printer
4.6	Hand over Ceremony	Restored Fort George is presented to the Stakeholders in ceremony.	0.25wk	$200.00	$300.00	$500.00		Project Manager, Project Sponsor, Stakeholders ,	Refreshments, Ribbon, Scissors

Chart 17 Cost Baseline

Project Name – Grenada Tourism Enhancement Project

Prepared by: Project – Project Manager

Submitted to : Project Sponsor

Total Cost Authorization - $2,220,894.00

Cost Baseline = Project Cost Estimate (work packages) + Contingency Reserves

= 2,175,380.00 + 45,514.00 = ECD $ 2,220,894.00

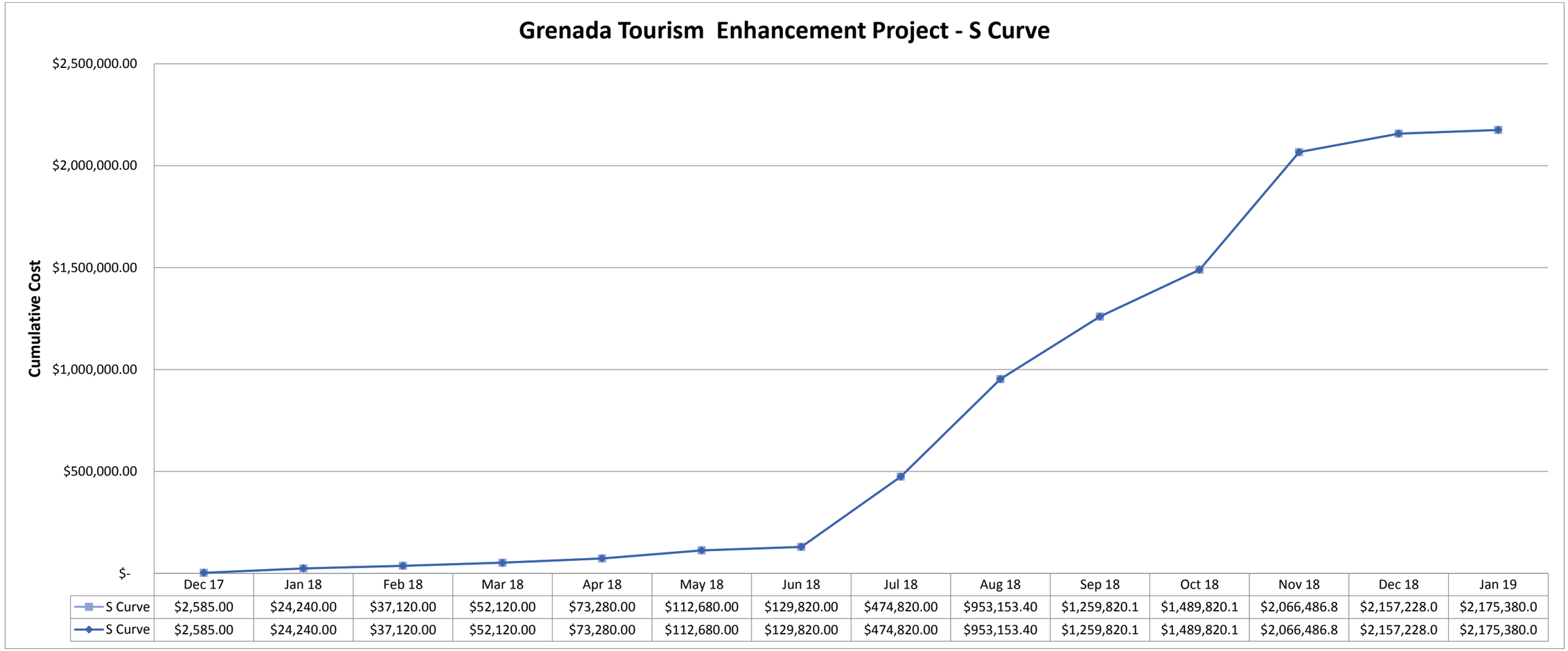
Expenses	Quantity	Unit Cost	Total Cost	Funding Source
Project Management – Labour Cost				Project
Project Manager	1	$ 15,000.00	$ 15,000.00	
Assistant Project Manager	1	$ 14,848.00	$ 14,848.00	
Project Engineer	1	$ 1,936.00	$ 1,936.00	
Procurement Officer	1	$ 3,760.00	$ 3,760.00	
Project Accountant	1	$ 176.00	$ 176.00	
Project Management – Material Costs Office Equipment & Permit (printer, computers, stationary)	1	$ 3100.00	$ 3100.00	Project
Design Consultants Staff – Labour Cost				Project
Architect	1	$ 23,760.00	$ 23,760.00	
Civil Engineer	1	$ 20,160.00	$ 20,160.00	
Electrical Engineer	1	$ 10,000.00	$ 10,000.00	
Sanitary Engineer	1	$ 7,800.00	$ 7,800.00	
Quantity Surveyor	1	$ 1,920.00	$ 1,920.00	
Draftsman	1	$ 2,560.00	$ 2,560.00	
Equipment, Software & Material Costs	1	$ 20,880.00	$ 20,880.00	Project

Expenses	Quantity	Unit Cost	Total Cost	Funding Source
Contractors Personel				Project
Contractor	1	$ 12,000.00	$ 12,000.00	
Foreman	2	$ 8,240.00	$ 16,480.00	
Contractor – Site Superintendent	1	$ 3,210.00	$ 3,210.00	
Skilled Interior Finisher	1	$ 11,520.00	$ 11,520.00	
Carpenters	3	$ 6,333.33	$ 19,000.00	
Mason	3	$ 9,000.00	$ 27,000.00	
Helpers	4	$ 4,050.00	$ 16,200.00	
Painter	1	$ 7,040.00	$ 7,040.00	
Contractors Subcontracts- Labour				**Project**
AC Subcontractor	1	$ 12,320.00	$ 12,320.00	
Plumbing Subcontractor	1	$ 2,000.00	$ 2,000.00	
Floor Finish Subcontractor	1	$ 3,120.00	$ 3,120.00	
Welding Subcontractor	1	$ 2,640.00	$ 2,640.00	
Lanscaper	1	$ 1,440.00	$ 1,440.00	
Door & Window Subcontractor	1	$ 2,240.00	$ 2,240.00	
Monument & Cannon Restoring Subcontractor	1	$ 4,200.00	$ 4,200.00	
Electrical Subcontractor	1	$ 4,320.00	$ 4,320.00	
Sign Designer Subcontractor	1	$ 782.00	$ 782.00	
Contractors Materials & Euipment Costs				
Rampart & Defense Walls cleaning & restoration.	1	$ 500,00.00	$ 500,00.00	

Expenses	Quantity	Unit Cost	Total Cost	Funding Source
Installation of Roof	1	$ 239,120.00	$ 239,120.00	
Timber partitions, shelves & counters	1	$ 195,200.00	$ 195,200.00	
Internal Masonary Works & Finishes	1	$ 229,920.00	$ 229,920.00	
Electrical Works	1	$ 388,640.00	$ 388,640.00	
Plumbing Works	1	$ 78,000.00	$ 78,000.00	
Installation of Doors & Windows	1	$ 167,760.00	$ 167,760.00	
Internal flooring	1	$ 96,880.00	$ 96,880.00	
Installation of Appliances	1	$ 58,720.00	$ 58,720.00	
Concrete Works	1	$ 191,000.00	$ 191,000.00	
Railings	1	$ 92,360.00	$ 92,360.00	
Signage	1	$ 24,208.00	$ 24,208.00	
Cannons & Monuments	1	$ 75,800.00	$ 75,800.00	
Benches	1	$ 46,800.00	$ 46,800.00	
Clean up & trimming of trees	1	$ 18,560.00	$ 18,560.00	
As Built Drawings	1	$ 1,000.00	$ 1,000.00	
Total Labour Cost			**$ 247,432.00**	
Total Material Costs			**$1,927,948.00**	
Total Material & Labour Cost			**$2,175,380.00**	
Contingency Reserve – Obtained from Quantitative Analysis			**$ 45,514.00**	
TOTAL			**$2,220,894.00**	

Cost Baseline. Retrieved on October 17, 2017 from http://pugetsoundpmi.org/images/downloads/Project_Management_document_templates/cost_baseline_template.doc

The S-Curve below depicts the monthly cumulative cash flow plan for the Grenada Tourisum Enhancement Project, the data was extracted from the activity cost estimates and the project Schedule .



	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	Jul 18	Aug 18	Sep 18	Oct 18	Nov 18	Dec 18	Jan 19
S Curve	$2,585.00	$24,240.00	$37,120.00	$52,120.00	$73,280.00	$112,680.00	$129,820.00	$474,820.00	$953,153.40	$1,259,820.1	$1,489,820.1	$2,066,486.8	$2,157,228.0	$2,175,380.0
S Curve	$2,585.00	$24,240.00	$37,120.00	$52,120.00	$73,280.00	$112,680.00	$129,820.00	$474,820.00	$953,153.40	$1,259,820.1	$1,489,820.1	$2,066,486.8	$2,157,228.0	$2,175,380.0

Figure 8 S Curve (Source: N. Andall, Author of Study)

4.5 Project Quality Management

Project Quality Management includes the “processes and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken”, (Project Management Institute, 2013, p.227).

4.5.1 Plan Quality Management

The project quality management process that will be developed for this FGP is Plan Quality Management which is the “process of identifying quality requirements and or standards for the project and its deliverables and documenting how the project will demonstrate complaince with the quality requirements and or standards”, (Project Management Institute, 2013, p.227).

In order to develop the quality management plan for GTEP, the project’s baseline which includes the project scope statement, work breakdown structure and dictionary were used as inputs, along with the schedule baseline, cost baseline, stakeholder register, risk register and requirements documentation. The tools and techniques applied were checksheets, quality tools and meetings.

Through the use of analytical and descriptive research the information, facts and data gathered were examined and applied in a systematic way in order to create a quality management plan with the use of a modified template as indicated below. After the plan quality management processes were completed, the stakeholders’ register, WBS and WBS dictionary were updated as deemed necessary.

GRENADA TOURISM ENHANCEMENT PROJECT QUALITY MANAGEMENT PLAN

Introduction

The Quality Management Plan for the Grenada Tourism Enhancement project will establish the activities, processes, and procedures for ensuring a quality product upon the conclusion of the project. The purpose of this plan is to:

- Ensure quality is planned
- Define how quality will be managed
- Define quality assurance activities
- Define quality control activities
- Define acceptable quality standards

Quality Management Approach

The quality management approach for the Grenada Tourism Enhancement project will ensure quality is planned for both the product and processes. In order to be successful, this project will meet its quality objectives by utilizing an integrated quality approach to define quality standards, measure quality and continuously improve quality.

Product quality for the Grenada Tourism Enhancement project will be defined by the Designers of each component of Fort George (Architect,Engineer,Electrcial Engineer, Sanitary Engineer) according to design specifications which refer to industry standards.The focus is on the project's deliverables and the standards and criteria being used will ensure the product meets established quality standards and customer satisfaction.

Process quality for the Grenada Tourism Enhancement project will focus on the processes by which the project deliverable will be designed and constructed. Establishing process quality standards will ensure that all activities conform to an organizational and international standard which results in the successful delivery of the product.

The Design Consulting Firm Team will define and document all organizational and project specific quality standards for both product and processes in the form of specifications. All quality documentation will become part of the Grenada Tourism Enhancement Project Plan and will be transitioned to operations upon the successful completion of the project.

Metrics will be established and used to measure quality throughout the project life cycle for the product and processes. The Design Consulting Firm will be responsible for working with the project team to define these metrics, conduct measurements, and analyze results. These product and process measurements will be used as one criterion in determining the success of the project and must be reviewed by the project sponsor. Metrics will include:

- Schedule
- Resources
- Cost
- Process performance
    - Construction methods
- Product performance
    - Compressive strength (concrete)
    - Tensile strength (reinforcement)
- Customer Satisfaction

Quality improvements will be identified by any member of the project team. Each recommendation will be reviewed to determine the cost versus benefit of implementing the improvement and how the improvement will impact the product or processes. If an improvement is implemented, the project manager will update all project documentation to include the improvement .

Perform Integrated Change Control

Changes can be requested verbally by any stakeholder, team member or the Project manager himself, but must be recorded formally on a change request form and entered into the change management system, which may require information on estimated time and cost impacts. Change requests are subject to the process specified in the change management plan (see Appendix 5) also specified herein.

All change requests will be submitted to the Project Manager (who will evaluate the requests), if the request is verbally made the Project Manager will enter it onto a change request form. Once evaluated and accepted, the Project manager will submit the change request to the Change Control Board/Project Steering Committee. The Change Control Board will review, evaluate, approve or deny changes requested and record and communicate those decisions to the Project Manager. Once the Change Control Board has approved any changes it will be forwarded to Project Sponsor through the Project Manager for acceptance. Upon acceptance of the changes by the Project Sponsor, the Project Manager and his team will update all project documents and communicate the changes to all Stakeholders.

Quality Policy

The quality policy of the Project Coordination Unit in the implementation of this project includies :-

1. To comply with ISO 9001:2015 requirements.
2. To comply with stakeholder product quality requirements.

Quality Objectives

The quality objectives are the main method used to focus the goal(s) from the Quality Policy into plans for improvement.The quality objectives of this project being implemented by the Project Coordination Unit are :-

1. To meet or exceed stakeholder delivery expectations on 100% of the deliverables.
2. To reduce defects in concrete and reinforcement from 15% to 0%.

3. To reduce defects in concrete and reinforcement from 10% to 0%.
4. To stay within the approved Budget by +/- 5%.
5. To reduce contractor non conformance to technical specifications from 30% to 2%.

Quality Requirements/Standards

Product Quality:

The product quality standards and requirements will be determined by the Consulting Design Firm. These standards will primarily be based on the international standrard as defined in the specifications. There may be product-specific quality standards identified that are not currently part of the documented standards. In this case, the Consulting Design Firm will review these newly identified standards and incorporate them into organizational documentation if approved. The project team will also document any newly identified quality standards into the project plan and ensure communication with all stakeholders.

Process Quality:

The process quality standards and requirements will be determined by the project Consulting Design Firm. Many of these standards will be based on existing company process standards. However, it is anticipated that there will be some unique steps in restoring Fort George which will require new quality standards. The project team will work with the Consulting Design Firm to establish acceptable standards and document these standards for incorporation into both organizational process documents as well as in the project plan. These standards will be communicated to all project stakeholders.

Quality Assurance:

The quality assurance of the GTEP focuses on the processes used in the construction process to restore Fort George. In order to ensure quality, an iterative quality process will be used throughout the project life cycle. This iterative process includes measuring process metrics, analyzing process data, and continuously improving the processes.

The GTEP Project Manager and the project team will perform assessments at planned intervals throughout the project to ensure all processes are being correctly implemented and executed. Chart 18 below provides the key quality assurance metrics for the GTEP Project.

Chart 18 Quality Assurance Metrics (Source: N. Andall, Author of Study).

Process Action	Acceptable Process Standrad	Process Phase	Assessment Interval
Concrete Slump Test	6 inches maximum	Slump test before placing concrete	Every batch of concrete provided by the ready mix truck
Concrete Compressive Strength Test	4000psi in 28days	3days 7days 28days	Every batch of concrete provided by the ready mix truck cubes should be taken
Reinforcement Tensile Stength Test	400MPA	Tensile Strength Test before placement	Every bundle of steel brought on site to be inspected and tested before placement

The project team will provide weekly quality management and conduct process audits on a weekly basis, monitor process performance metrics, and assure all processes comply with project and organizational standards. If discrepancies are

found, the project team will meet with the Project Manager and review the identified discrepancies.

The Project Manager will schedule regularly occurring project management and document reviews. In these reviews, an agenda item will include a review of project processes, any discrepancies and/or audit findings from the project team and a discussion on process improvement initiatives.

Process improvement is another aspect of quality assurance. Quality assurance reviews, findings, and assessments should always result in some form of process improvement and, as a result, product improvement. All process improvement efforts must be documented, implemented, and communicated to all stakeholders as changes are made.

Quality Control

The quality control of the GTEP focuses primarily on the design and restoration/construction of Fort George to acceptable standards and performance. The quality performance standards are in accordance with the international and organizational standards of performance.

The project team will perform all physical measurements and ensure all physical and performance standards are met. The Project Manager will schedule regularly occurring project management and document reviews. In these reviews, an agenda item will include a review of products/process, any discrepancies and/or audit findings from the project team, and a discussion on product/process improvement initiatives.

It is imperative to the success of the project that all of the established physical and performance standards are met. By doing so, the project team will ensure that the product achieves the high level of customer satisfaction anticipated .

Quality Control Measurements

All GTEP products and processes must be measured and fall within the established standards and tolerances. The below logs will be used by the project

team in conducting these measurements and will be maintained for use as supporting documentation for the project's acceptance.

In addition to quality assurance and control log, further quality control measurements have been provided in Appendix 4 which include Contractor's Quality Control Report Template, Non Conformance Report Template and an Inspection Checklist. Templates have been provided in Appendix 4 for added quality.

Quality Assurane Log

Trial #	Date	Process Measured	Actual Measured	Acceptable? (Y/N)	Recommendation	Date Resolved

Figure 9 Quality Assurance Log

Quality Control Log

Trial #	Date	Process Measured	Actual Measured	Acceptable? (Y/N)	Recommendation	Date Resolved

Figure 10 Quality Control Log

Authorization

Approved by the Project Sponsor:

_____ Date :_____

International Bank for Reconstruction and Development

Piscope, M. (2017) . Quality Management Plan. Retrieved on October 19, 2017 from http://www.projectmanagementdocs.com/project-planning-templates/quality-management-plan.html#axzz4yoa1eLho

4.6 Project Human Resource Management

Project human resource management includes “the processes that organize, manage, and lead the project team”, (Project Management Institute, 2013, p.255). The human resource management plan process group that was developed for this FGP is plan human resource management which form part of the planning process group.

4.6.1 Plan Human Resource Management

Plan Human Resource Management is the process of “identifying and documenting project roles, responsibilities, required skills, reporting relationships and creating a staff management plan”, (Project Management Institute, 2013, p.258). In order to develop a human resource management plan for the Grenada Tourism Enhancement Project, the project’s activity resource requirements and needs and method of communication among stakeholders were used as an input. The tools and techniques applied were position descriptions, expert judgement and meetings.The human resource management plan contains its purpose, roles and responsibilities, project organizational chart and staffing management.

GRENADA TOURISM ENHANCEMENT PROJECT HUMAN RESOURCE MANAGEMENT PLAN

Introduction

Human resources management is an important part of the Grenada Tourism Enhancement Project. The human resources management plan is a tool which will aid in the management of this project’s human resource activities throughout the project until closure. The human resources management plan includes:

- Roles and Responsibilities of Team Members Throughout the Project
- Project Organization Charts

- Staffing Management Plan to Include:
    - How resources will be acquired
    - Timeline for resources/skill sets
    - Training required to develop skills
    - How performance reviews will be conducted
    - Recognition and rewards system

The purpose of the human resources management plan is to achieve project success by ensuring the appropriate human resources are acquired with the necessary skills, resources are trained if any gaps in skills are identified, team building strategies are clearly defined, and team activities are effectively managed.

Roles and Responsibilities

The roles and responsibilities for the Grenada Tourism Enhancement Project are essential to project success. All team members must clearly understand their roles and responsibilities in order to successfully perform their portion of the project. For the Grenada Tourism Enhancement Project, the following project team roles and responsibilities have been established:

Chart 19 Human Resource Roles & Responsibilities (Source: N. Andall, Author of Study)

Role	Responsibilities	Competence	Authority
Project Manager	a. For the overall sucess of the project. b. To authorize and approve all project expenditures. c. For approving that work activities meet established acceptability criteria and fall within acceptable variances. d. Reporting on the project status in accordance with the communications management plan. e. To evaluate the performance of all project team members and communicate their performance to functional managers. f. The PM is also responsible for acquiring human resources for the project through coordination with functional managers. The PM must possess the following skills: leadership/management, budgeting, scheduling, and effective communication.	a. General management skills – leadership, sound judgement, effective decision making, team builder b. Knowledge of fundamental project management processes, methodologies and tools & techniques and ability to adapt them to organization.	a. To apply resources to the project b. To make project decisions c. Influence people to do project work d. Make decisions e. Sign approvals f. Accept deliverables
Project Sponsor	a. Responsible for funding, resources and support for the project. b. To approve or deny scope change requests, accept project deliverables, phase end reviews and go/no-go decisions	a. Not Applicable once funding is available	a. Make decisions b. Sign approvals c. Accept deliverables
Assistant Project Manager	a. To act as a backstopper for the project manager and fufill his roles once instructed to the the project manager.	a. General management skills – leadership, sound judgement, effective decision making,	a. To apply resources to the project b. To make project decisions c. Influence people to do project work

Role	Responsibilities	Competence	Authority
		team builder b. Knowledge of fundamental project management processes, methodologies and tools & techniques and ability to adapt them to organization.	
Procurement Officer	a. To undertake procurement activities for the project.	a. Sound knowledge of national procurement practices	a. Acquire goods and services for project b. Process payments
Project Engineer	a. To review and approve designs provided by the Design Consultants and monitor the progress of the construction works and report to the project manager.	a. Civil Engineering degree and experience	a. Quality acceptance b. Approve deliverables
Project Accountant	a. To undertake all the necessary accounting for the project and prepare the project final account.	a. Sound accounting skills and experience b. Ability to manage multiple project account	a. Acquire goods and services for project b. Process payments

Role	Responsibilities	Competence	Authority
Design Firm	a. To gather all project requirement, provide the conceptual designs, final designs, technical specifications, bill of quantities, environmental & saftey management plan and monitor periodically the progress of the construction works.	a. Designing projects of similar nature	a. Design facility
Contractor	a. Responsible for undertaking construction activities for the Grenada Tourism Enhancement Project.	a. Constructed projects of similar nature	a. Construct facility
Project Steering Committee	a. Responsible for address coordination issues as they arise during project implementation, b. Review periodic reports on project implementation, c. Recommend scope changes as well as review and approve scope changes.	a. Not Applicable	a. Make decisions b. Sign approvals c. Accept deliverables
Stakeholders	a. Responsilble for recommending scope changes, approving project deliverables and monitoring the progress of the works.	a. Not Applicable	a. Make decisions as far as posible b. Accept deliverables

Project Organizational Charts

The following Responsibility, Accountability, Consulted and Informed (RACI) chart shows the relationship between project tasks and team members. Any proposed changes to project responsibilities must be reviewed and approved by the project manager. Changes will be proposed in accordance with the project's change control process. As changes are made all project documents will be updated and redistributed accordingly.

Chart 20 Responsible, Accountable, Consulted & Informed (RACI)

Activity	Project Sponsor	Project Manager	Assistant Project Manager	Procurement Officer	Project Engineer	Project Accountant	Design Consulting Firm	Contractor	Project Steering Committee	Stakeholders
Procurement of Consultant	**C**	**A**	**I**	**R**	**I**	**I**			**C**	**I**
Collection of Requirements for Project		**A**					**R**			
Conceptual Designs	**C**	**A**	**I**		**C**		**R**		**C**	**C**
Final Designs, Technical Specifications, Environmental Management Plan and Bill of Quantities	**C**	**A**			**C**		**R**		**C**	**C**
Physcial Planning Permit Approval	**I**	**A**					**R**		**I**	**I**
Procurement of Contractor	**C**	**A**	**I**	**R**	**C**				**C**	**I**
Construction/Restoration of Fort George	**C**	**A**			**A**			**R**	**C**	**I**
Contract Administration	**C**	**A**			**C**			**I**	**C**	
Quality Assurance	**C**	**R**	**R**		**R**			**R**	**C**	
Change Requests	**C**	**R**							**C**	
Status Reports	**C**	**R**							**C**	
Final Walkthrough	**C**	**R**							**C**	**C**
Snag List	**C**	**R**			**R**			**A**	**C**	**C**
Certificate of Completion Issuance	**C**	**R**							**C**	
Final Account	**C**	**A**				**R**		**R**	**C**	

Key:
R – Responsible for completing the work
A – Accountable for ensuring task completion/sign off
C – Consulted before any decisions are made
I – Informed of when an action/decision has been made

Staffing Management

Staff Acquisition

The GTEP staff will consist of internal resources and external resources. The internal resources will consist of the Project Coordination Unit's full time staff and contracted external resources will consist of the design consulting firm which will complete the designs of the Fort, and the contractor who undertakes the restoration of the facility. All resources must be approved by the project manager before the resource may begin any project work.

Resource Calendars

The Grenada Tourism Enhancement Project will last for 14.4 months or 57.6 weeks. All resources are required before the project can begin. The resource histogram below illustrates the number of hours each personel spends on the project. The project designers will spend 25 weeks on the Project; the contractor will spend 28.8 weeks and the project management staff will spend a total of 57.6 weeks.

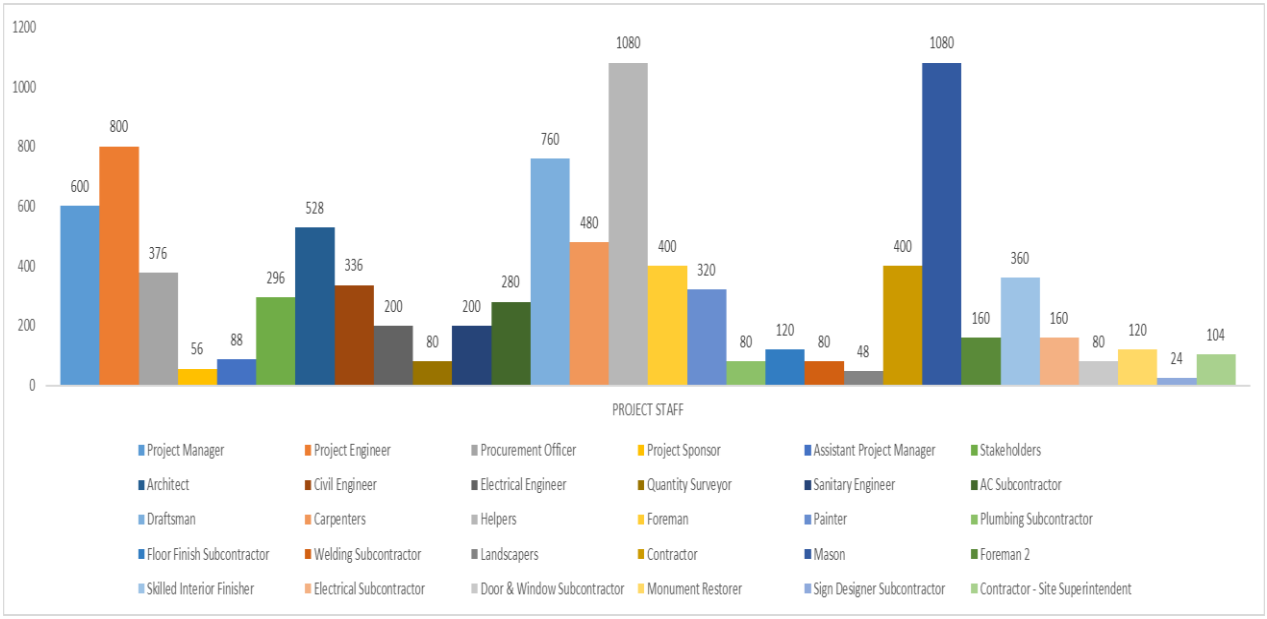


Figure 11 Resource Histogram (Source: N. Andall, Author of Study)

Training

There is currently no training scheduled with regards to the GTEP since the organization has adequate staff with required skill sets. However, if training requirements are identified, funding will be provided from the project reserve.

Performance Review

The project manager will review each team member's assigned work activities at the onset of the project and communicate all expectations of work to be performed. The project manager will then evaluate each team member throughout the project to evaluate their performance and how effectively they are completing their assigned work.

Recognition and Rewards

Although the scope of this project does not allow for ample time to provide cross-training or potential for monetary rewards, there are several planned recognition and reward items for project team members.

- Upon successful completion of the GTEP, a party will be held to celebrate the success of each team member with the team members' families present.
- Upon successful completion of the project, any team member who satisfactorily completed all assigned work packages on time will receive a certificate of thanks from the project sponsor.

Authorization

Approved by the Project Sponsor:

_____ Date :_____

International Bank for Reconstruction and Development

Piscope, M. (2017) . Quality Management Plan. Retrieved on October 19, 2017 from http://www.projectmanagementdocs.com/project-planning-templates/human-resource-plan.html#axzz4vuP5Wx3l

4.7 Project Communication Management

Project Communications Management includes " the processes that are required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and the ultimate disposition of project information", (Project Management Institute, 2013, p.287).

4.7.1 Plan Communications Management

The project communications management process that will be developed for this FGP is plan communications management which falls under the planning process group. Plan communication management is the process of developing an appropriate approach and plan for the project communications based on stakeholder's information needs and requirements,and available organizational assets", (Project Management Institute, 2013, p.289).

The communications management plan which is the output of the plan communications management is essential to the GTEP as it will ensure effective communication thoughout the life of the project. The stakeholder register and organizational process assets were used as inputs to develop the communications management plan with the use of the tools and techniques of communication technology, communication methods and a meeting with the Project Coordinator of the PCU. The information, facts and data gathered were examined and applied in a systematic way in order to create a communications management plan with the use of a modified template as indicated below.

The communications management plan contains the management approach, management constraints, roles, project team directory, communication methods and technologies, the communications matrix, communications flowchart, communication standards, escalation process and the glossary of communication terminology.

GRENADA TOURISM ENHANCEMENT PROJECT
COMMUNICATIONS MANAGEMENT PLAN

Introduction

This Communications Management Plan for the Grenada Tourism Enhancement Project sets the communications framework for this project. It will serve as a guide for communications throughout the life of the project and will be updated as communication needs change. This plan identifies and defines the roles of persons involved in this project. It also includes a communications matrix which maps the communication requirements of this project. An in-depth guide for conducting meetings details both the communications rules and how the meetings will be conducted, ensuring successful meetings. A project team directory is included to provide contact information for all stakeholders directly involved in the project.

Communications Management Approach

The Project Manager will take a proactive role in ensuring effective communications on this project. The communications requirements are documented in the Communications Matrix presented in Chart 2 below. The Communications Matrix will be used as the guide for what information to communicate, who is to do the communicating, when to communicate it and to whom to communicate.

As with most project plans, updates or changes may be required as the project progresses or changes are approved. Changes or updates may be required due to changes in personnel, scope, budget, or other reasons. Additionally, updates may be required as the project matures and additional requirements are needed. The project manager is responsible for managing all proposed and approved changes to the communications management plan. Once the change is approved, the project manager will update the plan and supporting documentation and will distribute the updates to the project team and all stakeholders.

Perform Integrated Change Control

Changes can be requested verbally by any stakeholder, team member or the Project manager himself, but must be recorded formally on a change request form and entered into the change management system, which may require information on estimated time and cost impacts. Change requests are subject to the process specified in the change management plan (see Appendix 5) also specified herein.

All change requests will be submitted to the Project Manager (who will evaluate the requests), if the request is verbally made the Project Manager will enter it onto a change request form. Once evaluated and accepted, the Project manager will submit the change request to the Change Control Board/Project Steering Committee. The Change Control Board will review, evaluate, approve or deny changes requested and record and communicate those decisions to the Project Manager. Once the Change Control Board has approved any changes it will be forwarded to Project Sponsor through the Project Manager for acceptance. Upon acceptance of the changes by the Project Sponsor, the Project Manager and his team will update all project documents and communicate the changes to all Stakeholders.

Communications Management Constraints

All project communication activities will occur within the project's approved budget, schedule, and resource allocations. The project manager is responsible for ensuring that communication activities are performed by the project team and without external resources which will result in exceeding the authorized budget. Communication activities will occur in accordance with the frequencies detailed in the Communication Matrix in order to ensure the project adheres to schedule constraints. Any deviation of these timelines may result in excessive costs or schedule delays and must be approved by the project sponsor.

The Project Coordination Unit organizational policy states that where applicable, standardized formats and templates must be used for all formal project communications. The PCU's organizational policy also states that only a Project

Coordinator may authorize the distribution of confidential information. The project manager is responsible for ensuring that approval is requested and obtained prior to the distribution of any confidential information regarding this project.

Stakeholder Communication Requirements

As part of identifying all project stakeholders, the project manager will communicate with each stakeholder in order to determine their preferred frequency and method of communication. This feedback will be maintained by the project manager in the project's Stakeholder Register. Standard project communications will occur in accordance with the Communication Matrix; however, depending on the identified stakeholder communication requirements, individual communication is acceptable and within the constraints outlined for this project.

In addition to identifying communication preferences, stakeholder communication requirements must identify the project's communication channels and ensure that stakeholders have access to these channels. If project information is communicated via secure means or through internal company resources, all stakeholders, internal and external, must have the necessary access to receive project communications.

Once all stakeholders have been identified and communication requirements are established, the project team will maintain this information in the project's Stakeholder Register and use this, along with the project communication matrix, as the basis for all communications.

Roles

Project Sponsor

The project sponsor is the champion of the project and has authorized the project by signing the project charter. This person is responsible for the funding of the project and is ultimately responsible for its success. Since the project sponsor is at the executive level, communications should be presented in summary format unless the project sponsor requests more detailed communications.

Project Steering Committee/Change Control Board

The Change Control Board is a designated group which reviews technical specifications and authorizes changes within the project.

Project Manager

The project manager has overall responsibility for the execution of the project. The project manager manages day to day resources, provides project guidance and monitors and reports on the projects metrics as defined in the project management plan. As the person responsible for the execution of the project, the project manager is the primary communicator for the project distributing information according to the Communications Management Plan.

Project Team

The Project Team is comprised of all persons who have a role performing work on the project. The project team needs to have a clear understanding of the work to be completed and the framework in which the project is to be executed. Since the project team is responsible for completing the work for the Project, they played a key role in creating the project plan including defining its schedule and work packages. The project team requires a detailed level of communications which is achieved through day to day interactions with the project manager and other team members, along with weekly team meetings.

Project Team Directory

The following table presents contact information for all persons identified in this communications management plan. The email addresses and phone numbers in this table will be used to communicate with these people.

Chart 21 Project Team Directory (Source: N. Andall, Author of Study)

Role	Name	Organization/ Department	Email	Phone Number
Project Sponsor	Camillo Alexis	International Development Bank	CamilloAlexis@IDB.org	473-440-0097
Project Coordinator	Margaret Belfon	Project Coordination Unit	MargaretBel@pcu.com	473-440-0645
Project Manager	Ronnie Theodore	Project Coordination Unit	RonnieTheo@pcu.com	473-440-7532
Procurement Officer	Jenny Alexander	Project Coordination Unit	JennyAlex@pcu.com	473-435-0887
Project Engineer	Najar Andall	Project Coordination Unit	NajarAndall@pcu.com	473-432-3745
Financial Specalist	Natika Bain Charles	Project Coordination Unit	NatikaCharles@pcu.com	473-440-8282
Permanent Secretary of the Ministry of Finance	Wayne Sandiford	Ministry of Finance Government of Grenada	WayneSandi@govgd.com	473-440-5295

Communication Methods & Technologies

The communication methods that will be used to share information among the project stakeholders are progress reports, emails, letters, memos, meetings, phone calls and video conferencing.

Communications Matrix

Chart 22 below identifies the communications requirements for the GTEP.

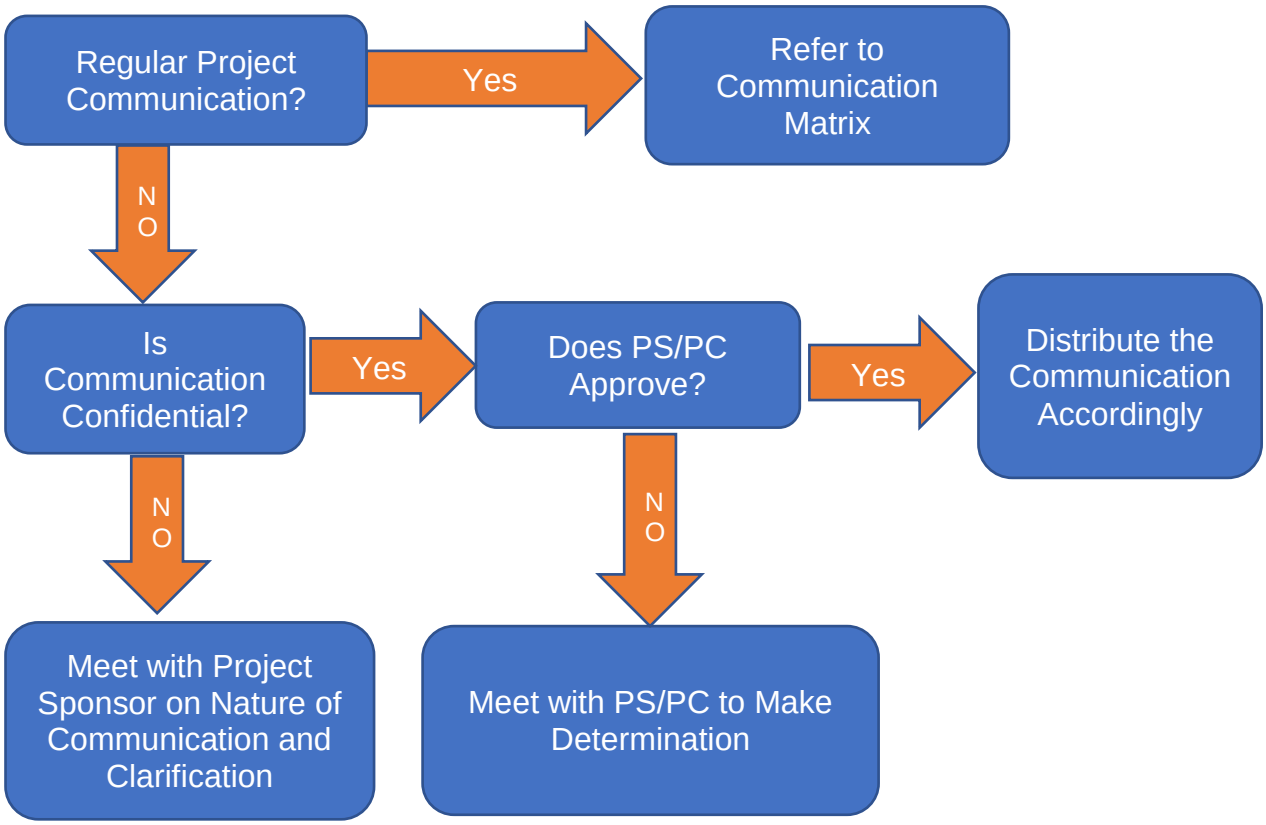
Chart 22 Project Communication Matrix (Source: N. Andall, Author of Study)

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable	Format (English)
Kick off Meeting	Introduce the project team and the project. Review project objectives and management approach.	Face to Face	As needed for Design Consultant & Contractor (twice)	Project Sponsor Project Team Stakeholders	Project Manager	Agenda Meeting Minutes	Microsoft Word – Soft Copy
Project Team Meetings	Review status of the project with team.	Face to Face Conference Call	Weekly	Project Team	Project Manager	Agenda Meeting Minutes Project Schedule	Microsoft Word – Soft Copy
Technical Design Meetings	Discuss and develop	Face to Face	As needed	Project Technical	Technical Lead from	Agenda Meeting	Microsoft Word –

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable	Format (English)
	technical design solutions for the project as needed.			Staff	Design Consulting Firm	Minutes	Soft Copy
Monthly Project Status Meetings	Report on the status of the project to management	Face to Face Conference Call	Monthly	Project Team PCU	Project Manager	Slide Updates Project Schedule	Microsoft Word & Power Point– Soft Copy
Project Status Report	Report the status of the project including activities, progress, costs and issues.	Email	Monthly	Project Sponsor Project Team PCU	Project Manager	Project Status Report Project Schedule	Microsoft Word & Power Point– Soft Copy

Communications Flowchart

The communication flowchart below was created to aid in project communication. This flowchart provides a framework for the project team to follow for this project. However, there may be occasions or situations which fall outside of the communication flowchart where additional clarification is necessary. In these situations, the project manager is responsible for discussing the communication with the project sponsor and making a determination on how to proceed.



Guidelines for Meetings

Meeting Agenda

Meeting Agenda will be distributed 5 business days in advance of the meeting. The agenda should identify the presenter for each topic along with a time limit for that topic. The first item in the agenda should be a review of action items from the previous meeting.

Meeting Minutes

Meeting minutes will be distributed within 2 business days following the meeting. Meeting minutes will include the status of all items from the agenda along with new action items and the parking lot list.

Action Items

Action items are recorded in both the meeting agenda and minutes. Action items will include both the action item along with the owner of the action item. Meetings will start with a review of the status of all action items from previous meetings and end with a review of all new action items resulting from the meeting. The review of the new action items will include identifying the owner for each action item.

Meeting Chairperson

The chairperson is responsible for distributing the meeting agenda, facilitating the meeting and distributing the meeting minutes. The chairperson will ensure that the meeting starts and ends on time and that all presenters adhere to their allocated time frames.

Note Taker/Secretary

The note taker is responsible for documenting the status of all meeting items, maintaining a parking lot item list and taking notes of anything else of importance during the meeting. The note taker will give a copy of their notes to the chairperson at the end of the meeting as the chairperson will use the notes to create the meeting minutes.

Time Keeper

The time keeper is responsible for helping the facilitator to adhere to the time limits set in the meeting agenda. The time keeper will let the presenter know when he or she is approaching the end of his or her allocated time. Typically, a quick hand

signal to the presenter indicating how many minutes remain for the topic is sufficient.

Parking Lot

The parking lot is a tool used by the facilitator to record and defer items which are not on the meeting agenda but merit further discussion at a later time or through another forum. A parking lot record should identify an owner for the item as that person will be responsible for ensuring follow-up. The parking lot list is to be included in the meeting minutes.

Communication Standard

For this project, the PCU will utilize standard organizational formats and templates for all formal project communications. Formal project communications are detailed in the project's communication matrix and include:

Kickoff Meeting – project team will utilize standard templates for meeting agenda and meeting minutes. Additionally, any slides presented will use the PCU standard slideshow template.

Project Team Meetings – project team will utilize standard templates for meeting agenda and meeting minutes. Additionally, any slides presented will use the PCU standard slideshow template.

Technical Design Meetings - project team will utilize PCU standard templates for meeting agenda and meeting minutes. Additionally, any slides presented will use the PCU standard slideshow template.

Monthly Project Status Meetings - project team will utilize PCU standard templates for meeting agenda and meeting minutes. Additionally, any slides presented will use the PCU standard slideshow template.

Project Status Reports – project team will utilize PCU standard templates for meeting agenda and meeting minutes. Additionally, the standard project status report document, available on the share drive, will be used to provide project status.

Informal project communications should be professional and effective but there is no standard template or format that must be used.

Communication Escalation Process

Efficient and timely communication is the key to successful project completion. As such, it is imperative that any disputes, conflicts, or discrepancies regarding project communications are resolved in a way that is conducive to maintaining the project schedule, ensuring the correct communications are distributed, and preventing any ongoing difficulties. In order to ensure that projects stay on schedule and issues are resolved, PCU will use its standard escalation model to provide a framework for escalating communication issues. The table below defines the priority levels, decision authorities, and timeframes for resolution.

Chart 23 Communication Escalation Process (Source: Piscopo Mark, Author of Communications Management Plan)

Priority	Definition	Decision Authority	Timeframe for Resolution
Priority 1	Major impact to project operations. If not resolved quickly, there will be a significant adverse impact to revenue and/or schedule.	Project Sponsor	Within 4 hours
Priority 2	Medium impact to project operations which may result in some adverse impact to revenue and/or schedule.	Project Sponsor	Within one business day
Priority 3	Slight impact which may cause some minor scheduling difficulties with the project but no impact to business operations or	Project Manager	Within two business days

Priority	Definition	Decision Authority	Timeframe for Resolution
	revenue		
Priority 4	Insignificant impact to project but there may be a better solution.	Project Manager	Work continues and any recommendations are submitted via the project change control process

Glossary of Communiction Technology

Chart 24 Glossary of Communication Technology (Source: Piscopo Mark, Author of Communications Management Plan)

Term	Definition
Communication	This refers to he effective sending and receiving of information. Ideally, the information received should match the information sent. It is the responsibility of the sender to ensure this takes place.
Stakeholder	Stakeholders are individuals or groups involved in the project or whose interests may be affected by the project's execution or outcome.
Communications Management Plan	This is a portion of the overall project management plan which details how project communications will be conducted, who will participate in communications, frequency of communications, and methods of communications.
Escalation`	Escalation is the process which details how conflicts and issues will be passed up the management chain for resolution as well as the timeframe to achieve resolution.

Authorization

Approved by the Project Sponsor:

_____ Date :_____
International Bank for Reconstruction and Development

Piscope, M. (2017) . Communication Management Plan. Retrieved on October 6, 2017 from http://www.projectmanagementdocs.com/project-planning-templates/communications-management-plan.html#axzz4ujMdQDSb

4.8 Risk Management Plan

Project Risk Management includes “the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project”, (Project Management Institute, 2013, p.309).

4.8.1 Plan Risk Management

For the purposes of this FGP, the first risk management process that will be explored is plan risk management which is “the process of defining how to conduct risk management activities for a project”, (Project Management Institute, 2013, p.309). The inputs used to develop the risk management plan were the project charter which contained high level risks, requirements and the project description; the stakeholder register was also used as an input. The tools and techniques applied were expert judgement, meetings and analytical techniques.

The data gathered were examined and applied in a systematic way in order to create a risk management plan with the use of a modified template as indicated below. The risk management plan contains its purpose, roles and responsibilities, risk management approach (identification, assessment, controlling and monitoring).

GRENADA TOURISM ENHANCEMENT PROJECT RISK MANAGEMENT PLAN

Introduction

The purpose of this Risk Management Plan is to establish a formal process by which risks will be identified, mitigated or avoided, and managed. Effective risk management is a proactive and ongoing process in which we will seek to identify risks in the project, as early as posible, and implement controls to mitigate or avoid those risks. If possible, risks will be identified before they occur so that avoidance and mitigation efforts can be implemented to avoid any adverse impacts

associated with those risks. The Risk Management Plan will define the processes by which risks and risk owners will be identified, risks will be evaluated, mitigation and avoidance measures will be evaluated, and risks will be tracked.Before risk management begins, it is imperative that a foundation is established for providing structured project information; thus, the following project elements were completed and defined prior to developing this Risk Management Plan:

- Define work scope, schedule, resources, and cost elements
  - ✓ Develop project WBS/WBS dictionary
  - ✓ Develop master schedule and detailed schedules
  - ✓ Estimate project cost and finalize budget
  - ✓ Identify required and available resources
  - ✓ Establish performance measurement metrics
- Define minimum and maximum baseline thresholds
  - ✓ Schedule
  - ✓ Resources
  - ✓ Cost
- Baseline reporting requirements
  - ✓ Format
  - ✓ Frequency of distribution
  - ✓ Distribution list
- Define Risk Management Roles and Responsibilities
  - ✓ Project Manager chairs the risk assessment meetings
  - ✓ Project team participates in risk assessment meetings and members serve as meeting recorder and timekeeper
  - ✓ Key stakeholders participate in risk assessment meetings
  - ✓ Project Sponsor may participate in risk assessment meetings

Roles and Responsibilities

The following table depicts the roles of and responsibilities of the project management team and stakeholders with regards to project risks.

Chart 25 Risk Management Roles & Responsibilities (Source: Piscopo Mark, Author of Risk Management Plan)

Roles	Responsibilities
Project Sponsor	a. The project sponsor is responsible for approving the Risk Management Plan as well as communicating all high-priority risks and mitigation and avoidance strategies to the Project Manager.
Project Manager	b. The project manager has overall responsibility for risk management c. He is responsible for developing and maintaining the Risk Management Plan as well as ensuring the project has adequate resources for implementing the Risk Management Plan. d. The Project Manager will review risks and take action as necessary and communicate all risk-related activities to the project team. e. He is responsible for the implementation of risk mitigation and avoidance strategies for all high-level risks.
Project Team	f. The Project team is responsible for risk identification, maintaining the risk register, and assisting the project manager in evaluating risk control actions and their impact on cost, schedule, and quality. g. The project team will also assist the project manager in creating risk assessments, briefings, and reports and maintain day to day responsibility for tracking risks and mitigation/avoidance strategies.
Project Stakeholders	h. Project stakeholders are responsible for the identification of risks and providing timely and accurate status on all risks related to their areas of responsibility. They may also be required to assist the project manager and team in the development of risk

Roles	Responsibilities
	mitigation and avoidance strategies as necessary.

Risk Management Approach

The approach that was taken to manage risks for this project included a methodical process by which risks were identified, scored and ranked. Essentially risk managers will provide status updates on their assigned risks in the weekly project team meetings. Upon the completion of the project, during the closing process, the project manager will analyze each risk as well as the risk management process. Based on this analysis, the project manager will identify any improvements that can be made to the risk management process for future projects. These improvements will be captured as part of the lessons learned knowledge base.

Perform Integrated Change Control

Changes can be requested verbally by any stakeholder, team member or the Project manager himself, but must be recorded formally on a change request form and entered into the change management system, which may require information on estimated time and cost impacts. Change requests are subject to the process specified in the change management plan (see Appendix 5) also specified herein.

All change requests will be submitted to the Project Manager (who will evaluate the requests), if the request is verbally made the Project Manager will enter it onto a change request form. Once evaluated and accepted, the Project manager will submit the change request to the Change Control Board/Project Steering Committee. The Change Control Board will review, evaluate, approve or deny changes requested and record and communicate those decisions to the Project Manager. Once the Change Control Board has approved any changes it will be forwarded to Project Sponsor through the Project Manager for acceptance. Upon acceptance of the changes by the Project Sponsor, the Project Manager and his

team will update all project documents and communicate the changes to all Stakeholders.

Risk Management Process

Risk management will follow a phased risk management process: risk identification, risk assessment, risk control, and risk monitoring. These phases and activities do not occur one time, but rather they are ongoing throughout the project's lifecycle. Once new risks are identified and assessed, they are controlled and monitored repeatedly until they are resolved and these actions are no longer required.

Risk Identification

Risk assessment is the process of evaluating critical project areas and processes in order to determine potential risks which may appear at any point during the project. A risk is any event or threat which may result in some type of adverse impact on the cost, schedule, or quality/performance of the project. The methods used to identify risks were:

- Review the project charter which provided a list of high level risks
- Analyze the WBS and subsidiary management plans to determine areas where risk is most likely
- Review project archives and lessons learned to determine where risks have occurred in similar projects in the past
- Expert judgement was also used to assist in identifying risks.

Risk Assessment

In order to determine the severity of the risks identified, a probability and impact factor was assigned to each risk. This process will allowed the project manager to prioritize risks based upon the effect they may have on the project. The project manager will utilize a probability-impact matrix to facilitate the team in moving each risk to the appropriate place on the matrix. In order to quantify these risks, each was assigned a score. The probability of the risks indicated the likelihood that the risk or opportunity occurring (on a scale from 0 to 10 with 10 being the highest), whereas the impact indicated the impact on the project if the risk occurs (scale from 0 to 10 with 10 being the highest). Once each risk is assigned a score based on the probability and impact, they will fall into the high risk(red), medium risk (yellow), or low risk (green) portion of the probability-impact matrix below.

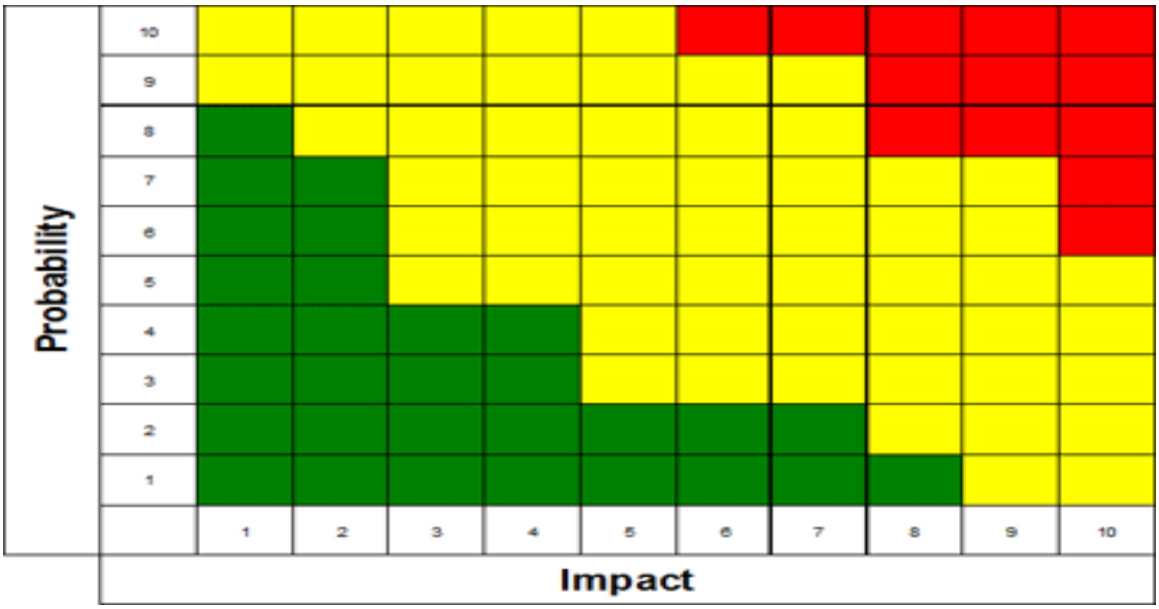


Figure 12 Probability-impact matrix Source: Piscopo Mark, Author of Risk Management Plan)

Planning Risk Responses (Avoidance or Mitigation Strategy)

The project manager will lead the project team in developing responses to each identified risk. As more risks are identified, they will be quantified and the team will

develop avoidance and mitigation strategies. These risks will be added to the Risk Register to ensure they are monitored at the appropriate times and are responded to accordingly. If necessary, the Risk Management Plan will be updated.

The risks for this project will be managed and controlled within the constraints of time, scope, and cost. All identified risks will be evaluated in order to determine how they affect this triple constraint. The project manager, with the assistance of the project team, will determine the best way to respond to each risk to ensure compliance with these constraints.

All risks will be documented in the Risk Register for this project which is a log of all identified risks, their probability and impact to the project, the category they belong to, mitigation strategy, triggers and risk response.

Risk Monitoring & Controlling

During weekly project team meetings, the risk owner for each risk will discuss the status of that risk; however, only risks which fall into the current time period will be discussed. Risk monitoring will be a continuous process throughout the life of this project. As risks approach on the project Schedule, the project manager will ensure that the appropriate risk manager provides the necessary weekly status updates which include the risk status, identification of trigger conditions, and the documentation of the results of the risk response.

Authorization

Approved by the Project Sponsor:

_____ Date :_____
International Bank for Reconstruction and Development

Piscope, M. (2017) . Risk Management Plan. Retrieved on October 6, 2017 from http://www.projectmanagementdocs.com/project-planning-templates/risk-management-plan.html#axzz4wlSlYiWi

4.8.2 Identify Risks

Identify Risks was the second process within the risk management process developed and it is “the process of determining which risks may affect the project and documenting their characteristics”, (Project Management Institute, 2013, p.319). The risk management plan, cost management plan, schedule management plan, quality management plan, human resource management plan, scope baseline, activity cost estimates, activity duration estimates, stakeholder register and procurement documents were used as inputs into the process. The tools and techniques applied were documentation review and expert judgement in order to produce the risk register which documents the list of identified risks and potential risk reponses seen in Chart 26.

4.8.3 Perform Qualitative Risk Analysis

Perform Qualitative Risk Analysis was perfomed after the risk identification process and it is the “process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact’’, (Project Management Institute, 2013, p.328). In inputs used to perform qualitative risk analysis were the risk management plan, scope baseline and risk register. To perform the analysis, the tools and techniques applied were risk probability and impact assessment, probability and impact matrix, risk categorization, risk urgency assessment and expert judgement. The risk register was used to capture Perform Qualitative Risk Analysis.

4.8.4 Perform Quantitative Risk Analysis

Perform Quantitative Risk Analysis is the “process of numerically analyzing the effect of identified risks on overall project objectives’’, (Project Management

Institute, 2013, p.333). In inputs used to perform quantitative risk analysis were the risk management plan, cost management plan, schedule management plan and risk register. To perform the analysis, the tool and technique applied was the quantititative risk analysis technique of expected monetary value analysis. The EMV was calculated by multiplying the value of each possible outcome by its probability of occurrence and adding the products together. In other words to calculate the EMV, the two inputs used to were the probability of a risk occurring (expressed as a percentage) obtained from qualititative analysis and the impact of the risk occurring (expressed in some monetary measure). The risk register was used to capture Perform Quantitative Risk Analysis. The additional cost/impact represented in the form of monetary value was calculated based on the activities that would need to be done to recover which was taken from the breakdowns in the activities cost estimates. The EVM was then used to determine the project contingency as the impact represented in the form of monetary value was calculated based on the activities that would need to be done to recover which was taken from the breakdowns in the activities cost estimates. The summation of all individual activity contingency reserves yielded the total contingency reserve as explained in section 4.4.2 Activity Estimates.

4.8.5 Plan Risk Responses

Plan Risk Responses was the last risk management process undertaken for the development of this FGP. It is the process of “developing options and actions to enhance opportunities and threats to project objectives”, (Project Management Institute, 2013, p.342). The risk management plan and risk register were used as inputs to plan risk responses; the tools and techniques applied were strategies for negative risks or threats, expert judgement and contingent response strategies. The risk responses have been detailed in the risk register seen in Chart 26.

Chart 26 Risk Register (Source: N. Andall, Author of Study)

Risk Identification (Cause,Risk, Consequence)		Qualititative Risk Analysis				Quantitative Risk Analysis			Risk Responses			
Risk	**Risk Category**	**Probability**	**Impact**	**Risk Score**	**Risk Ranking**	**Value of Possible Outcome**	**Probability Represented as Percentage**	**Earned Monetary Value**	**Risk Prevention Strategies**	**Risk Response**	**Trigger**	**Risk Owner**
1. Bidders' lack of experience may result in non responsive tender submissions which may delay commencement of construction contract by 2 months with an additional cost of $2660.	Procurement	5	10	50	Medium Risk	$2660 obtained from activities cost Chart 26 to have pre-bid meeting and re-issue bidding documents and re-evaluate bids.	50%	$1130.	a. Pre-bid meeting will be held with prospective bidders to explain the tender documents	a. Avoid/Mitigate b. Retender if two responsive bids cannot be obtained and have two Pre-bid meetings for second round of tenders c. Contingency reserve was put in place.	Non responsive bids	Project Manager & Procurement Officer
2. Shortage of climate resilient materials on island delays the completion of project activities by two months with an additional cost of $20,480 to pay staff for additional time lost	Procurement	6	10	60	High Risk	an additional cost of $20,480 to pay staff for additional time lost (PM,PO,PE). Obtained from activities cost Chart 26	60%	$12,288	a. Purchase materials ahead of schedule	a. Avoid/Mitigate b. Source materials from neighbouring island which takes one week to arrive on the island c. Contingency reserve was put in place	Shortage of materials on island	Procurement Officer & Contractor
3. Inflation may result in material price increase which may adversely increase contract price	Finance	3	10	30	Medium Risk	$0.00 because of prevention strategy Fixed Price Contract	30%	$0.0	a. Avoid delays in awarding contract, b. Fixed Price Contract	a. Avoid/Mitigate	Increase in material price	Project Manager
4. Unskilled workers (subcontractors)	Construction	7	10	70	High Risk	$0.00 because of prevention	10%	$0.0	a. Ensure contractor	a. Avoid/Mitigate/ b. Transfer Risk	Excessive damage and	Contractor, Project

Risk Identification (Cause,Risk, Consequence)		Qualititative Risk Analysis				Quantitative Risk Analysis			Risk Responses			
Risk	Risk Category	Probability	Impact	Risk Score	Risk Ranking	Value of Possible Outcome	Probability Represented as Percentage	Earned Monetary Value	Risk Prevention Strategies	Risk Response	Trigger	Risk Owner
may cause excessive damages to stonewalls/rampar t on site which should be preserved						strategy Contractual place risk on contactor to remedy at his cost.			hires qualified workers on site. Request qualifications as necessary b. Contractual place risk on contactor to remedy at his cost.	c. Have contractor rework and replace at his cost.	wastage of materials.	Manager
5. Contractors employees non-compliance to the Safety Management Plan leads to accidents on site.	Construction	4	5	28	Medium Risk	$0.00 because of prevention strategy Contractors All Risk Insurance absorbs cost implications	40%	$0.0	a. Enforce use of Saftey Management Plan & Contractors All Risk Insurance b. Ensure proper site and saftey management and monitor activities closely c. Ensure skilled and profesional site workes are employed	a. Avoid/Mitigate b. Enforce use of Saftey Management Plan c. Contractors All Risk Insurance absorbs cost implications	Increase in the number of accidents on site	Contractor, Project Manager
6. Contractors employees non-compliance to the Environmental Management Plan leads to improper disposal of waste on site.	Construction	4	5	28	Medium Risk	$0.00 because of prevention strategy Contractor will face financial penality	40%	$0.0	a. Enforce use of Environmental Management Plan with penality and monitor actvities b. Request that the contractor reports weekly	a. Avoid/Mitigate b. Enforce use of Environmental Management Plan and closely monitor activities c. Enforce local penalities for	Improper disposal of waste on site	Contractor, Project Manager

Risk Identification (Cause,Risk, Consequence)		Qualititative Risk Analysis				Quantitative Risk Analysis			Risk Responses			
Risk	**Risk Category**	**Probability**	**Impact**	**Risk Score**	**Risk Ranking**	**Value of Possible Outcome**	**Probability Represented as Percentage**	**Earned Monetary Value**	**Risk Prevention Strategies**	**Risk Response**	**Trigger**	**Risk Owner**
									on all environmetal concerns	non-compliance		
7. High volume of projects to be approved by Physical Planning Department and the lack of staff delays approval process/permit for project by two months	Construction	8	10	80	High Risk	Additional cost for Design Firm to wait for changes $19,200.00. Obtained from activities cost Chart 26	80%	$15,360.0	a. Submit plans ahead of Schedule	a. Add Contingency allocation b. Avoid/Mitigate c. Request speedily review from the Head of the Physical Planning Unit. Advising them of the economic benefit of the project to the Island.	2 week approval timeline not met	Engineer, Project Manager
8. Inclement weather (excessive rains) cause construction works to hault for two months over the foruteen month period.	Weather	7	10	70	High Risk	$0.00 Additonal cost for Contractor, however $ $20,480.cost for Project Team additonal time . Obtained from activities cost Chart 26	70%	$14,336.0	a. Include enough buffer in project schedule for rainy days	a. Add Contingency allocation b. Accept c. Approve contractor's request for additional time to complete works without penalities	Excessive rains	Contractor, Project Manager
9. Use of heavy equipment causes excessive noise and dust which	Construction	3	4	15	Low Risk	$0.00	30%	$0.0	a. Notify residents when heavy equipment will	a. Avoid/Mitigate b. Enforce use of Environmental Management	Residents complain Excessive	Contractor, Project Manager

Risk Identification (Cause,Risk, Consequence)		Qualititative Risk Analysis				Quantitative Risk Analysis			Risk Responses			
Risk	Risk Category	Probability	Impact	Risk Score	Risk Ranking	Value of Possible Outcome	Probability Represented as Percentage	Earned Monetary Value	Risk Prevention Strategies	Risk Response	Trigger	Risk Owner
lead to unhappy residents									be working at least four days before b. Only work with heavy equipment during the hours of 8am-4pm c. Constantly wet potential dusty areas	Plan c. Notify residents when heavy equipment will be working d. Constantly wet potential dusty areas	noise and dust as nights	
10. Design Consulting Firm take on additional work which results in late submissions .	Design	5	9	45	Medium Risk	$0.00 additonal cost to project	50%	$0.0	a. Award contract based on existing commitments of firm b. Stipulate firm must adhere to deadlines or face financial penalities	a. Avoid/Mitigate b. Advise Design Firm that they must meet their deadlines or face financial penalities c. Enforce penalities	Late submission of designs	Design Consulting Firm
11. Architecture of facility fails to pass Physical Planning Unit approval delaying commencement of bidding for works contractor	Design	3	9	18	Medium Risk	$0.00 additonal cost to project	30%	$0.0	a. Ensure architect thoroughly undertands Physical Planning Architectural requirements b. Project Manager will review concept designs before final	a. Avoid/Mitigate b. Redesign within two days making modifications suggested by Physical Planning	Physical Planning responds to Architecture component of the design	Design Consulting Firm

Risk Identification (Cause,Risk, Consequence)		Qualititative Risk Analysis				Quantitative Risk Analysis			Risk Responses			
Risk	Risk Category	Probability	Impact	Risk Score	Risk Ranking	Value of Possible Outcome	Probability Represented as Percentage	Earned Monetary Value	Risk Prevention Strategies	Risk Response	Trigger	Risk Owner
									designs are undertaken which would limit likelihood of occurrence			
12. Stakeholders lose interest in project because of their heavy work load which leads to Consultants deliverables not being approved by two week delay	Stakeholders	6	10	60	High Risk	$4800 additonal cost to project for Design Firm. Obtained from activities cost Chart 26	50%	$2400	a. Constanty engage stakeholders b. Keep stakeholders interested by reminding them how important their roles are and providing incentives such as lunch on meeting days	a. Add Contingency allocation b. Keep stakeholders interested by reminding them how important their roles are and providing incentives such as lunch on meeting days	Stakeholders not available to attend meetings to approve designs.	Project Manager
13. Lack of public consultations with the Grenada Institute of Civil Engineers, Civil Society and the public leads to lack of stakeholder buy-in.	Stakeholders	3	5	15	Medium Risk	$0.00	30%	$0.0	a. Undertake public consultations during concept stage and final design. b. Keep public informed	a. Avoid/Mitigate b. Review designs with stakeholders to achieve buy-in	Lack of stakeholder buy- in Protest	Project Manager

Risk Register Key Terms

Risk: The risk stated in a complete sentence which states the cause of the risk, the risk, and the effect that the risk causes to the project.

Risk Category: Categorization of risks by area of project affected, source of risk or other useful category.

Probability: The likelihood that a risk or opportunity will occur (on a scale from 0 to 10 with 10 being the highest).

Impact: The impact of the risk on the project if the risk occurs (scale from 0 to 10 with 10 being the highest).

Risk Score: Determined by multiplying probability and impact (scale from 0 to 100).

Risk Ranking: A priority list which is determined by the relative ranking of the risks (by their scores) within the project with the number one being the highest risk score.

Risk Response: The action which is to be taken if this risk occurs.

Trigger: Something which indicates that a risk is about to occur or has already occured.

Risk Owner: The person who the project manager assigns to watch for triggers, and manage the risk response if the risk occurs

4.9 Project Procurement Management

Project procurement management includes the “processes necessary to purchase or acquire products, services, or results needed from outside the project team”, (Project Management Institute, 2013, p.355).

4.9.1 Plan Procurement Management

The project procurement management plan process that was developed for this FGP is the plan procurement management which falls under the planning process group. Plan procurement management is the “process of documenting project procurement decisions, specifying the approach, and identifying potentail sellers”, (Project Management Institute, 2013, p.355). In order to plan procurement management, the inputs used were the requirements documentation, risk register, activity resource requirements, project schedule, activity cost estimates, stakeholder register, the project scope statement, WBS and the WBS dictionary.

The tools and techniques applied were make or buy analysis, expert judgement and market research and meetings. The outputs produced were the procurement management plan which incooperates the procurement documents, source selection criteria and make or buy decisions.

Through the use of analytical and descriptive research, the information, facts and data gathered were examined and applied in a systematic way in order to create a prourement management plan with the use of a modified template as indicated below.

GRENADA TOURISM ENHANCEMENT PROJECT PROCUREMENT MANAGEMENT PLAN

Introduction

This procurement management plan sets the procurement framework for this project. It will serve as a guide for managing procurement throughout the life of the project and will be updated as acquisition needs change. This plan identifies and defines the items to be procured, the types of contracts to be used in support of this project, the contract approval process, and decision criteria. The importance of coordinating procurement activities, and establishing firm contract deliverables and metrics in measuring procurement activities are included. Other items included in the procurement management plan include: procurement risks and procurement risk management considerations; how costs will be determined; how standard procurement documentation will be used; and procurement constraints.

Project Management Approach

The project manager will provide oversight and management for all procurement activities under this project. He will work with the project team and the contractor to identify all items to be procured for the sucessful completion of the project. The contractor will submit a list of all the items to be procured to the project manager, who will review based on the list that has been established by his team; this list will then be submitted to the procurement officer. The accounts department will review the procurement items, determine whether it is advanteagous to make or buy it and then begin the vendor selection, purchasing and the contracting process.

Perform Integrated Change Control

Changes can be requested verbally by any stakeholder, team member or the Project manager himself, but must be recorded formally on a change request form and entered into the change management system, which may require information on estimated time and cost impacts. Change requests are subject to the process specified in the change management plan (see Appendix 5) also specified herein.

All change requests will be submitted to the Project Manager (who will evaluate the requests), if the request is verbally made the Project Manager will enter it onto a change request form. Once evaluated and accepted, the Project manager will submit the change request to the Change Control Board/Project Steering Committee. The Change Control Board will review, evaluate, approve or deny changes requested and record and communicate those decisions to the Project Manager. Once the Change Control Board has approved any changes it will be forwarded to Project Sponsor through the Project Manager for acceptance. Upon acceptance of the changes by the Project Sponsor, the Project Manager and his team will update all project documents and communicate the changes to all Stakeholders.

Procurement Definition

The following procurement items and/or services were determined to be essential for project completion and success for the review and approval of the PCU's procurement officer and accountant. The project manager and the engineer are also authorized to approve purchases for the project team.

Chart 27 Procurement Definition (Source: N. Andall, Author of Study)

Item/Services	Justification	Needed By
Design Consulting Firm	To undertake architectural, structural, electrical, plumbing, landscaping and air conditioning designs for Fort George .	1/31/18
Contractor	To undertake the construction works for the facility.	7/19/18
Roofing Materials – timber elements (rafters, ridge board, laths, plywood), water proofing membrane, fish scale clay tile finish and guttering .	To form roof structural framing and cover the facility .	7/19/18
Timber partitions, shelves & counters –	To construct partitions and shelves for facility.	8/16/18

Item/Services	Justification	Needed By
Lumber, screws, finishes.		
Masonry Works & Finishes – Mortar (sand, cement, wáter)	To repoint and seal cracks to internal masonary walls.	9/6/18
Electrical Works – switches, light fixtures, transformers, meter base, electrcial panel, Air Conditioning and Solar System Unit.	To generate solar power and provide green lighting and air conditioning to the facility.	10/10/18
Plumbing Works – water closets, face basins, faucets and sprinkler system.	To provide water to the facility through the use of faucets and water closets.	11/1/18
Doors & Windows – Greenheart timber doors and window.	To secure the facility.	11/1/18
Internal flooring – Tiles, grout, spacers .	To provide non skid flooring that is easy to maintain.	11/1/18
Appliances – coffee maker, comercial cooker, refrigerator.	To provide food services to the tourists that visit the facility.	11/22/18
Concrete Works – Concrete, BRC, formwork, trowel, broom.	To construct the parking lot and walkway around.	11/29/18
Railings – Stainless steel pipes, welder, non corrosive pipes	To provide secure barricade to prevent tourists from falling and entering dangerous areas.	12/20/18
Signage		12/20/18
Cannons & Monuments – welding rods, paint	To restore cannons and monuments, to weld and replace damaged sections.	12/20/18
Benches – lumber, screws, paint	To construct benches.	12/20/18

Type of Contracts to be Used

All items and services to be procured for this project will be solicited under firm-fixed price contracts. The project team will work with the procurement officer and accountant to define the item types, quantities, services and required delivery

dates. The procurement officer and accountant will then solicit bids from various vendors/hardware stores in order to procure the items within the required time frame and at a reasonable cost under the firm fixed price contract once the vendor is selected.

Procurement Risks

All procurement activities carry some potential for risk which must be managed to ensure project success. While all risks will be managed in accordance with the project's risk management plan, there are specific risks which pertain specifically to procurement which must be considered:

- Unrealistic schedule and cost expectations for vendors
- Manufacturing capacity capabilities of vendors
- Conflicts with current contracts and vendor relationships
- Potential delays in shipping and impacts on cost and schedule
- Questionable past performance for vendors
- Potential that final product does not meet required specifications

These risks are not all-inclusive and the standard risk management process of identifying, documenting, analyzing, mitigating, and managing risks will be used.

Procurement Risk Management

Project risks will be managed in accordance with the project's risk management plan. However, for risks related specifically to procurement, additional consideration and involvement are required. Project procurement efforts involve external organizations and potentially affect current and future business relationships as well as internal supply chain and vendor management operations. Because of the sensitivity of these relationships and operations, the project team will include the project manager, procurement officer and accountant in all project meetings and status reviews.

Any decisions regarding procurement actions must be approved by the project sponsor. Any issues concerning procurement actions or any newly identified risks

will immediately be communicated to the project's contracting department point of contact as well as the project sponsor.

Cost Determination

A Request for Proposal (RFP) will be issued in order to solicit proposals from various vendors which describe how they will meet our requirements and the cost of doing so. All proposals will include vendor support for items stated in the procurement definition paragraph. The vendors will outline how the work will be accomplished, who will perform the work, vendors' experience in providing these goods, customer testimonials, backgrounds and resumes of employees performing the work, and a line-item breakdown of all costs involved as necessary based on the ítems requirements. However, based on the work to be undertaken, only costs estimates will be submitted. The vendors will be required to submit work breakdown structures (WBSs) and work schedules to show their understanding of the work to be performed and their ability to meet the project schedule.

All information must be included in each proposal as the proposals will be used as the foundation for selection criteria. Proposals which omit solicited information or contain incomplete information will be discarded from consideration.

Standardized Procurement Documentation

These standard documents have been developed and revised over a period of many years in an effort to continually improve procurement efforts. They provide adequate levels of detail which allows for easier comparison of proposals, more accurate pricing, more detailed responses, and more effective management of contracts and vendors.

The PCU maintains a repository of standard project management and procurement documentation that will be used for this project. The following standard documents will be used for project procurement activities:

- Standard Request for Proposal Template to include
    - Background

    - Proposal process and timelines
    - Proposal guidelines
    - Proposal formats and media
    - Source selection criteria
    - Pricing forms
    - Statement of work
    - Terms and Conditions
- Internal source selection evaluation forms
- Non-disclosure agreement
- Letter of intent
- Firm fixed price contract
- Procurement audit form
- Procurement performance evaluation form
- Lessons learned form

Procurement Constraints

There are several constraints that must be considered as part of the project's procurement management plan. These constraints will be included in the RFP and communicated to all vendors in order to determine their ability to operate within these constraints. These constraints apply to several areas which include schedule, cost, scope, resources, and technology:

1. Schedule: Project schedule is not flexible and the procurement activities, contract administration, and contract fulfillment must be completed within the established project schedule.
2. Cost: Project budget has contingency reserve built in; however, the reserve may not be applied to procurement activities. Reserves are only to be used in the event of an approved change in project scope or at management's discretion.
3. Scope: All procurement activities and contract awards must support the approved project scope statement. Any procurement activities or contract

awards which specify work which is not in direct support of the project's scope statement will be considered out of scope and disapproved.

4. Resources: All procurement activities must be performed and managed with current personnel. No additional personnel will be hired or re-allocated to support the procurement activities on this project.
5. Technology: Specifications have already been determined and will be included in the statement of work as part of the RFP. While proposals may include suggested alternative material or manufacturing processes, parts specifications must exactly match those provided in the statement of work.

Control Approval Process

The first step in the contract approval process is to determine what items or services will require procurement from outside vendors as many products are available from hardware vendors on the local market.

Given that the island does not manufacture the materials and products required for the facility, estimates will be solicited from hardware vendors. Once cost analyses are complete and the list of items and services to be procured externally is finalized, the accountant and procurement officer will send out solicitations to outside vendors.

Once solicitations are complete and proposals have been received by all vendors, the approval process begins. The first step of this process is to conduct a review of all vendor proposals to determine which meet the criteria established by the project team and the purchasing and contracts department. All purchases require approval from the project manager.

Decision Criteria

The criteria for the selection and award of procurement contracts under this project will be based on the following decision criteria:

- Ability of the vendor to provide all items by the required delivery date

- Quality
- Cost
- Expected delivery date
- Comparison of outsourced cost versus in-sourcing
- Past performance

These criteria will be measured by the project manager. The ultimate decision will be made based on these criteria as well as available resources.

Vendor Management

The project manager is ultimately responsible for managing vendors. In order to ensure the timely delivery and high quality of products from vendors, the project manager, contractor and project engineer, will meet weekly with the accountant and procurement officer and each vendor to discuss the progress for each procured item. The meetings can be in person or by teleconference. The purpose of these meetings will be to review all documented specifications for each product as well as to review the quality findings. This forum will provide an opportunity to review each item's development or the service provided in order to ensure it complies with the requirements established in the project specifications. It also serves as an opportunity to ask questions or modify contracts or requirements ahead of time in order to prevent delays in delivery and schedule. The project manager will be responsible for scheduling this meeting on a weekly basis until all items are delivered and are determined to be acceptable.

Performance Metrics for Procurement Activities

While the accountant and procurement officer (PCU) have their own internal metrics for procurement, the following metrics are established for vendor performance for this project's procurement activities. Each metric is rated on a 1-3 scale as indicated below:

Chart 28 Procurement Performance Metrics (Source: Piscopo Mark, Author of Procurement Management Plan)

Vendor	Product Quality	On Time Delivery	Documentation Quality	Cost Per Unit	Transaction Efficiency
Vendor #1					
Vendor #2					

1 – Unsatisfactory
2 – Acceptable
3 - Exceptional

Authorization

Approved by the Project Sponsor:

_____ Date :_____
International Bank for Reconstruction and Development

Piscope, M. (2017) . Procurement Management Plan. Retrieved on October 9, 2017 from from http://www.projectmanagementdocs.com/project-planning-templates/procurement-management-plan.html#axzz4xt1u4oRC.

4.10 Project Stakeholder Management

According to the Project Management Institute, the project stakeholder management includes the "processes required to identify the people, groups, or organizations that would impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution", (Project Management Institute, 2013, p.391). It also focuses on continuous communication to understand their needs and expectations, addresses issues, manages conflicting interests and fosters engagements in project activities and decisions (Project Management Institute, 2013).

4.10.1 Identify Stakeholders

Identifying the stakeholders for the Grenada Tourism Enhancement Project was the second initiating process undertaken in the development of this project stakeholder management plan. Identifying stalkeholders is the process of "identifying the people, groups, or organizations that could impact or be impacted by a decision, activity, or outcome of the project; and analyzing and documenting relevant information regarding their interests, involvement, interdependencies, influences, and potential impact on project sucess", (Project Management Institute, 2013, p.391).

In order to identify the stakeholders for GTEP, the inputs used were the project charter which provided information on the internal and external parties related with the project and affected by the results or execution of the project as well as the projects apprasial document.The tools and techniques used were expert judgement, meetings and stakeholder analysis in order to produce the stakeholder register seen in Chart 29 below.

The main tool applied in order to produce the stakeholder regsiter was stakeholder analysis as the process gathers and analyses qualitative and quantitative information to determine whose interest should be taken into account throughout the project. The following criteria was used to determine who should be considered as a stakeholder for the project:

1) Will the person or hiso r her organization be directly or indirectly affected by this project?
2) Does the person or his or her organization hold a position from which he or she can influence the project?
3) Does the person have an impact on the project's resources (material, personnel, funding)?
4) Does the person or his or her organization have any special skills or capabilities the project will require?
5) Does the person potentially benefit from the project or is he or she in a position to resist this change?
6) At what point does the person have the greatest impact on the Project?

Once all potential stakeholders, along with their relevant information such as roles, interests, requirements and influence levels, were identified, the potential impacts or support that each stakeholder could generate were analyzed and they were classified so that an approach strategy could be determined.

Chart 29 Stakeholder Register (Source: N. Andall, Author of Study)

Name	Stakeholder	Role of Stakeholder	Location	Contact Information	Major Requirements	Influence on Project	Internal/ External	Unaware/Neutral/Supporter/Resistor/ Leading
Camillo Alexis	Project Sponsor	To provide project funding	Washington	CamilloAlexis@IDB.org	a. The project must be completed within the budget and on schedule.	High	External	Leading
Margaret Belfon	Project Coordinator	Coordinate all projects within the PCU and ensure its smooth implementation	Grenada	MargaretBel@pcu.com	a. The project must be completed within the budget and on schedule. b. All stakeholders are to be involved continuously throughout the project to ensure all requirements have been captured to prevent redesign.	High	Internal	Leading
Ronnie Theodore	Project Manager	Project Management	Grenada	RonnieTheo@pcu.com	a. The project must be completed within the budget and on schedule. b. Stakeholders must actively participate and be clear on their needs & requirements for the project.	High	Internal	Leading
Jenny Alexander	Procurement Officer	To undertake procurement actvities for the project-acquire goods and servies	Grenada	JennyAlex@pcu.com	a. he project must be completed within the budget and on schedule. b. All payment certificates or requests for payments are to be submitted with supporting documentation and signed by the project manager.	High	Internal	Leading
Najar Andall	Project Engineer	To approve to provide quality assurance during construction	Grenada	NajarAndall@pcu.com	a. Contractor complies with the designs and specifications. b. The project must be completed within the budget and on schedule. c. All variations should be requested in writing and contractor should not proceed until formal approval is given.	High	Internal	Leading
Natika Bain Charles	Financial Specalist	Financial Controller	Grenada	NatikaCharles@pcu.com	a. There should be adequate funds for the project in order to process payments within the stipulated contract period. b. The project must be completed within the budget and on schedule.	High	Internal	Leading
Wayne Sandiford	Permanent Secretary of the Ministry of Finance	To oversee the operations of the PCU and provide resources as required to ensure the smooth implementation of	Grenada	WayneSandi@govgd.com	a. The project must be completed within the budget and on schedule. b. Building works contract must be signed with the Ministry of Works.	High	Internal	Leading

Name	Stakeholder	Role of Stakeholder	Location	Contact Information	Major Requirements	Influence on Project	Internal/ External	Unaware/Neutral/Supporter/Resistor/ Leading
		the works						
Patrica Clarke	Ministry of Tourism	Accept deliverables and assist with determining project scope	Grenada	PatricaClarke@govgd.com	a. Architecture must blend into that of the town of St, George. b. To preserve all historic monuments and cannons on the site. c. To preserve all rampart/stone walls. d. There should be physical allocations for a coffee shop, gift shop, interpretation center and toilet facilities. Coffee shop and bathroom facilities are to be located on the ground floor and the Gift Shop & Interpretation Center should be located on the first floor. These facilities must have water, electricity, air conditioning. e. Electricity should be generated by the use of solar panels. f. Rain water should be harvested and used through the irrigation system to maintain the lawn and plants on the Fort. g. The main building of the facility should be designed to withstand a category 5 hurricane. h. Climate resilient material as well as corrosion resistant materials (stainless steel) should be integrated into the building components to prevent rusting due to the project's close proximity to the sea. i. All appliances, fixtures, fittings, railings should be made with stainless steel. j. Ministry of Tourism staff will provide requirements for design of facility. k. Ministry of Tourism senior staff will review and approve architectural drawings and specifications. l. The project must be completed within the budget and on schedule.	High	Internal	Leading

Name	Stakeholder	Role of Stakeholder	Location	Contact Information	Major Requirements	Influence on Project	Internal/ External	Unaware/Neutral/Supporter/Resistor/ Leading
Fabian Purcell	Physical Planning Unit	To approve requests for infrastructural development and compliance with the Grenada Building Code	Grenada	FabianPurcell@ppu.com	a. Building must adhere to the architecture of St.Geoges, the town of Grenada, b. To preserve all historic monuments and cannons on the site. c. To preserve all rampart/stone walls. d. The main building of the facility should be designed to withstand a category 5 hurricane. e. Climate resilient and corrosion resilient materials should be incooperated. f. Three Storey buildings are not permitted. g. Compliance with the Grenada Building Code .	High	External	Supportive
Whyme Cox	Engineering Society	To ensure structural integrity is maintained	Grenada	WhymeCox@gipe.com	a. Building must adhere to the architecture of St.Geoges, the town of Grenada. b. To preserve all historic monuments and cannons on the site. c. To preserve all rampart/stone walls. d. The main building of the facility should be designed to withstand a category 5 hurricane. e. Climate resilient and corrosion resilient materials should be incooperated. f. Final designs are submitted for review and buy -in.	Medium	External	Supportive
Sandra Ferguson	Civil Society	To ensure the preservation of Grenada's history	Grenada	SandraFerguson@cs.com	a. Designs maintain and preserve the history of Fort George. b. Designs are submitted for approval before submission to the Physical Planning Unit to ensure public buy-in to the project. c. Building must adhere to the architecture of St.Geoges, the town of Grenada. d. To preserve all historic monuments and cannons on the site. e. To preserve all rampart/stone walls. f. The main building of the facility should be designed to withstand a category 5 hurricane. g. Climate resilient and corrosion resilient materials should be incooperated.	Medium	External	Resistant

Name	Stakeholder	Role of Stakeholder	Location	Contact Information	Major Requirements	Influence on Project	Internal/ External	Unaware/Neutral/Supporter/Resistor/ Leading
INES	Design Consulting Firm	To undertake designs, provide technical specifications and bill of quantities for Fort George	Grenada	INES@engrs.com	a. Stakeholder requirements for facility. b. For all social issues to be resolved.	High	Internal	Supportive
To be determined	Contractor	To undertake rehabiitation work to Fort George	Grenada		a. Access to site b. Detailed working drawings and technical specifications c. For payments to be processed within the stipulated timeframe d. For all social issues to be resolved	Low	Internal	Supportive
The Public	The Public	To approve scope of works	Grenada		a. To be involved in community consultations b. To approvde conceptual designs c. To be employed during the construction phase	Medium	External	Resistant

Power/Interest Classification

Once stakeholders were identified, a power/interest grid shown in Figure 12 was used to group stakeholders based on their level of authority (power) and their level of concern (interest) regarding the project outcomes. The purpose of the classification is to help identify and categorize the stakeholders so that appropriate attention and or management stragegy can be given to each stakeholder according to the level of engagement needed.

Figure 12 below depicts the power/interest clasification of each stakeholder based on their respective groups.

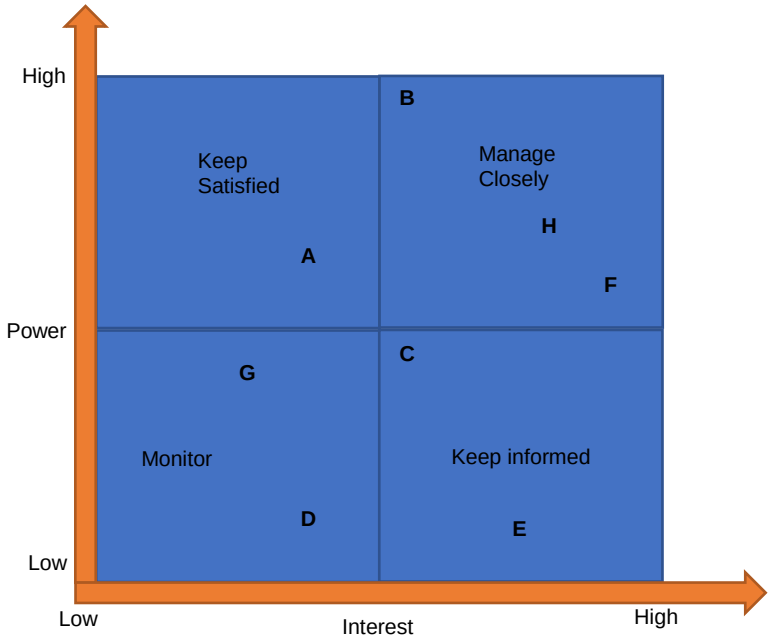


Figure 13 Power/Interest Classification

Chart 30 Stakeholder Classification and Management Strategy (Source: Piscopo Mark, Author of Stakeholder Management Plan)

Stakeholder	Power (High or Low)	Interest (High or Low)	Management Strategies (Keep Satisfied, Manage Closely, Monitor, Keep Informed)
Project Sponsor	High	High	Manage Closely
Project Coordinator	High	High	Manage Closely
Project Manager	High	High	Manage Closely
Procurement Officer	High	High	Manage Closely
Project Engineer	High	High	Manage Closely
Financial Specalist	High	High	Manage Closely
Permanent Secretary of the Ministry of Finance	High	High	Manage Closely
Ministry of Tourism	High	High	Manage Closely
Physical Planning Unit	High	Low	Keep Satisfied
Engineering Society	Low	High	Keep Informed
Civil Society	Low	High	Keep Informed
Design Consulting Firm	High	High	Manage Closely
Contractor	High	High	Manage Closely
The Public	Low	High	Keep Informed

4.10.2 Plan Stakeholder Management

Plan Stakeholder Management was the second process group undertaken and it is the process of “developing appropriate management strategies to effectively engage stakeholders throughout the project lifecycle, based on the analysis of their needs, interests, and potential impact on project success”, (Project Management

Institute, 2013, p.399). In order to plan stakeholder management, the inputs used were the stakeholder register, plan human resource management and plan communications management. The tools and techniques applied were expert judgement, meetings and analytical techniques which were used to classify the engagement levels of stakeholders in order to produce the stakeholder management plan.

Based upon the information gathered in the Stakeholder Register, the stakeholder classification & management strategy and communications management plan, the project manager will be responsible for engaging stakeholders throughout the lifecycle of the project.

The level of engagement required for each stakeholder may vary over the course of the Project; therefore, their engagement levels were classified as:

- Unaware – unaware of project and potential impact
- Resistant – aware of project and potential impacts and resistant to change
- Neutral – aware of project and potential impacts and supportive to change
- Leading – aware of project and potential impacts and actively engaged in ensuring the project is a sucess.

To ensure the correct level of engagement is being achieved by each stakeholder, the project manager will analyze current levels of engagement by using the Stakeholders Engagement Assessment Matrix below. The stakeholder communications requirements can be refereced from the communications management plan, along with the information to be distributed, including language, format, content and frequency.

Stakeholders Engagement Assessment Matrix

Chart 31 Stakeholder Engagement Assessment Matrix (Source: Piscopo Mark, Author of Stakeholder Management Plan

Stakeholder	Unaware	Resistant	Netural	Supportive	Leading
Project Sponsor					Yes
Project Coordinator					Yes
Project Manager					Yes
Procurement Officer					Yes
Project Engineer					Yes
Financial Specalist					Yes
Permanent Secretary of the Ministry of Finance					Yes
Ministry of Tourism					Yes
Physical Planning Unit				Yes	
Engineering Society				Yes	
Civil Society		Yes			
Design Consulting Firm				Yes	
Contractor				Yes	
The Public		Yes			

4.10.3 Manage Stakeholder Engagement

Managing stakeholder engagement is the process of “communicating and working with stakeholders to meet their needs/expectations, address issues as they occur, and foster appropriate stakeholder engagement in project activities throughout the project lifecycle”, (Project Management Institute, 2013, p.404).

In order to manage stakeholder engagement, the inputs that will be used are the stakeholder management plan and the communications management plan. The tools and techniques that will be applied are communication methods, interpersonal skills and management skills. This will produce the issue log, change requests and project management plan updates.

To effectively manage stakeholder engagement, the project will utilize the Communication Plan and strategies identified in the Stakeholders Engagement Assessment Matrix above to communicate project related information to key stakeholders in a proactive and timely manner. Leveraging the information provided in the Communication Plan (i.e., stakeholder groups, communication items, purpose, method of communication, and frequency), the project will have the ability to increase support and minimize stakeholder resistance throughout the life of the project. Managing stakeholder engagement will help to increase the probability of project success by ensuring that stakeholders clearly understand the project goals, objectives, benefits, and risks.

In line with the analysis above, the project team will also be actively listening and soliciting input and feedback to make sure communications are being received and understood, and also to capture important information to help make adjustments and to respond to problem areas.

Perform Integrated Change Control

Changes can be requested verbally by any stakeholder, team member or the Project manager himself, but must be recorded formally on a change request form and entered into the change management system, which may require information

on estimated time and cost impacts. Change requests are subject to the process specified in the change management plan (see Appendix 5) also specified herein.
All change requests will be submitted to the Project Manager (who will evaluate the requests), if the request is verbally made the Project Manager will enter it onto a change request form. Once evaluated and accepted, the Project manager will submit the change request to the Change Control Board/Project Steering Committee. The Change Control Board will review, evaluate, approve or deny changes requested and record and communicate those decisions to the Project Manager. Once the Change Control Board has approved any changes it will be forwarded to Project Sponsor through the Project Manager for acceptance. Upon acceptance of the changes by the Project Sponsor, the Project Manager and his team will update all project documents and communicate the changes to all Stakeholders.

4.10.4 Control Stakeholder Engagement

Control stakeholder engagement is the process of “monitoring overall stakeholder relationships and adjusting strategies and plans for engaging them”, (Project Management Institute, 2013, p.409). The inputs that will be used to control stakeholder engagement are issue log, work performance data and the project management plan. The tools and techniques that will be applied are information mangement system, expert judgement and meetings. The output from this process will be work performance information, change requests, project management plan updates and project document updates.

The Communications Plan and the Risk Management Plan will have mechanisms to receive ongoing direct feedback from key stakeholders. Individual stakeholders will be encouraged to participate and to voice questions and concerns, with the most serious issues and concerns that are raised addressed in a formal, rigorous process through the Issues and Risk logs.

As described in the Scope Management Plan, the project will solicit broad participation in the collection and validation of requirements, which will uncover

issues and concerns early on so that they can be addressed.Stakeholders are critical to the project's success. The project team has planned for and will work to involve, engage and listen to all key stakeholders throughout the project lifecycle.

5.0 CONCLUSIONS

5.1 As a result of the analytical research undertaken, it is possible to conclude that to satisfy the general objective of the project, a Project Management Plan was created to guide the initiating and planning process for the restoration of Fort George in accordance to the PMBOK Guide 5th Edition.

5.2 In order to formally authorize the existence of the project, establish boundaries and provide the project manager with the authority to apply organizational resources to the project, a project charter was created to satisfy specific objective one. The key benefit is that it established a clear project start and project boundaries as well as a direct way for management to formally accept and commit to the project.

5.3 In order to satisfy specific objective number two, it was crucial to ensure that the project captures all the work and only the work required to successfully complete the project. This was achieved by developing a scope management plan, collecting requirements, defining the project scope and creating the work breakdown structure and its dictionary.

5.4 Once the project scope was developed, guidance was provided on how the project schedule would be managed throughout the lifecycle of the project by developing a schedule management plan. Work packages, once defined were broken down into project activities which provided the basis for estimating and scheduling. Project activities were logically sequenced to obtain further efficiency; activity resources were estimated along with their respective durations and the project schedule was developed.

5.5 To satisfy specific objective four, a cost management plan was developed to provide guidance and direction on how the project costs would be managed. The cost management approach was developed, the project cost was estimated and the budget was determined in accordance with the PMBOK Guide 5th Edition.

5.6 Project quality followed, as it provided guidance on how the project quality would be managed and validated throughout the project. The quality management approach, requirements, assumptions, constraints and control measures were defined. This will ensure that products will meet expectations in order to manage the activities of the project.

5.7 To satisfy specific objective number six and ensure that human resources were adequately identified and managed, a human resource management plan was developed. The roles and responsibilities, along with the competencies and authority of staff, were identified. The project organizational chart was completed, together with the staffing management approach, which detailed staff acquisition, resource calendar, training performance review, recognition, and reward terms.

5.8 In order to identify and document the most effective and efficient ways to communicate with stakeholders, a communications management plan and matrix was created in order to satisfy specific objective seven. The communications matrix detailed the communication type, frequency, objective, audience and deliverables which would ensure all communication is done at the right time and to the right person.

5.9 In order to satisfy specific objective eight, a formal process was created in order to identify, mitigate against, avoid and manage risks. This was done through the creation of a Risk Management Plan. This plan detailed the roles and responsibilities of each team member and stakeholder within the context of risk, risk management approach and knowledge of conducting risk assessments. Once project risks were identified, responses were planned in order to produce the risk register.

5.10 In order to define the processes necessary to purchase or acquire goods and services needed from outside of the project team, a procurement management plan was developed to satisfy specific objective nine. The

procurement management plan defined the types of contracts to be used, the risks involved, the risk management, constraints, vendor management and performance metrics.

5.11 To satisfy the last specific objective, the people, groups and organizations that would be impacted by the project were identified. Creating the stakeholder management plan ensured that the appropriate management strategies to effectively engage stakeholders throughout the life of the project were developed as well.

6.0 RECOMMENDATIONS

6.1 The Permanent Secretary of the Ministry of Finance should ensure that it is mandatory that the Project Coordination Unit develops project management plans for all future projects to be implemented within the unit. These management plans will alleviate the lack of procedures or guidelines to adequately define project initiating, planning, executing, monitoring & controlling and closure, which has resulted in poor scope definition, cost overruns, project delays and lack of stakeholder participation in previous projects.

6.2 The Project Coordination Unit makes use of the project management plan developed in this final graduation project, as a template for developing future management plans for projects of a similar nature.

6.3 The Project Coordination Unit ensures that all process groups and knowledge areas in accordance with the PMBOK Guide 5th Edition are thoroughly considered given that only the initiating and planning processes were developed for this project.

6.4 The Project Coordination Unit staffs human resources with the requisite competencies in order to promote the use of good project management practices and provides project management training to the existing staff to improve performance and efficiency.

6.5 The Project Coordination Unit develops a database of best practices and lessons learned in project management as a guide for future projects.

6.6 The Project Coordination Unit develops a standard communication framework with all line ministries to ensure efficient and effective coordination among projects.

6.7 Given the high turnover of personnel which usually occurs due to political tampering and not due to lack of performance, I recommend that the Ministry of Finance regularizes hiring/firing policies to retain personnel who perform as this will increase the likelihood of project success.

6.8 The Ministry of Finance should increase the salary structure of staff to match the high demands of the project environment which will guarantee performance from staff.

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8.0 APPENDICES

Appendix 1: FGP Charter

PROJECT CHARTER

Client Organization: Project Coordination Unit, Ministry of Finance & Energy

Process inputs: Business case, statement of work, agreements, enterprise environmental factors, organizational project assets.

Tools and techniques: Expert judgment, facilitation techniques.

Outputs: Charter

PROJECT CHARTER	
Date	**Project Name:**
June 26 2017	Development of a Project Management Plan for the Construction of the Grenada Tourism Enhancement Project.
Knowledge Areas / Processes	**Applicacion Area (Sector / Activity)**
Knowledge areas: Project Integration Management , Project Scope Management, Project Time Management, Project Cost Management, Project Quality Management, Project Human Resource Management, Project Communication Management, Project Risk Management, Project Procurement Management and Project Stakeholder Management.	Construction

Process groups: Initiating Process Group and Planning Process Group.	
Start date	**Finish date**
June 26, 2017	December 22, 2017

Project Objectives (general and specific)

General objective:

The general objective of this proposal is to create a Project Management Plan for guiding the processes of initiating and planning, in accordance to the Project Management Body of Knowledge Guide 5th Edition (PMBOK), for the restoration of the tourist attraction site- Fort George.

Specific objectives:

1. to develop a project charter that will provide project manager with the information, processes, and authority to create a PMP that will be used in initiating and planning phase of the project in accordance to the PMBOK Guide 5th Edition;
2. to create a scope management plan to collect requirements, define the scope to ensure that it includes all the work to sucessfully complete the project, to create the work breakdown structure (WBS) and WBS dictionary in accordance with the PMBOK Guide 5th Edition for project planning;
3. to develop a schedule management plan in order to define activities, sequence activities, estimate resources and durations as well as develop the project's schedule in accordance with standards of the PMBOK Guide 5th Edition for project planning;
4. to create a cost management plan in order to estimate cost, determine the project's budget and define the processes to manage the project budget in accordance with the PMBOK Guide 5th Edition for project planning;
5. to develop a quality management plan in order to determine the quality requirements for the project and to ensure that the project results demonstrate compliance with those requirements in accordance with the PMBOK Guide 5th Edition for project planning;
6. to create a human resource management plan for the purpose of providing guidance on how the project's human resources will be defined, staffed and managed effectively in accordance with standards of the PMBOK Guide 5th Edition for project planning;

7. to develop a communication management plan in order to ensure that project communications are structured, well organized and effective in accordance with the PMBOK Guide 5th Edition for project planning;
8. to create a risk management plan in order to identify risks, perform risk analysis and plan risk responses to minimize their likelihood in accordance with standards of the PMBOK Guide 5th Edition for project planning;
9. to develop a procurement management plan for the purpose of describing how the project team will acquire goods and services external to the organization in accordance with the PMBOK Guide 5th Edition for project planning;
10. to create a stakeholder management plan in order to identify stakeholders and the management strategies required to effectively engage stakeholders in accordance with the PMBOK Guide 5th Edition for project initiating and planning.

Project purpose or justification (merit and expected results)

The Project Coordination Unit (PCU) has implemented major developmental projects over the past twenty years and although the unit has been in existence for a relatively long time, it is faced with the challenge that projects are not being implemented in a structured manner.

Project management plans and its subsidiary management plans are not used to guide the implementation of these projects. With the exception of the procurement management plan, this is the only management plan that is developed as it is a mandatory requirement by the funding agencies in order for funds to be disbursed.

The development of this Project Management Plan for the Restoration of Fort George will provide guidance to standardize project management practices within the unit. The project will essentially give guidance to the project team with regards to the ten knowledge areas and their respective initiating and planning processes. This project management plan can also be used as a reference for any decision that is to made on the project and to clarify ambiguity. It will benefit the project team by ensuring that the management of the project is carried out consistently and in line with the policy and procedures of the PCU. This Project Management Plan can also be used as a baseline for the development of future management plans within the unit.

Description of Product or Service to be generated by the Project – Project final deliverables
The final product will be a document which contains a Project Management Plan for the Rehabilitation of Fort George under the Grenada Tourism Enhancement Project. The document will contain details on the following management plans and documents with focus being placed on the initiating and planning process groups as applicable to guide the project team:- 1. A document which will contain the project charter which will formally authorize the start of the project and provide the project manager with the authority to apply resources to the project. 2. A scope management plan which will detail how to collect requirements, define project scope to ensure that it includes all the work to sucessfully complete the project, define the project's work breakdown structure (WBS) and WBS dictionary in accordance with the PMBOK Guide 5th Edition for project planning. 3. A detailed schedule management plan which will define activities, sequence activities, estimate resources and durations as well as develop the project's schedule in accordance with standards of the PMBOK Guide 5th Edition for project planning . 4. A cost management plan which will estimate project cost , determine the project's budget and define the processes to manage the project budget in accordance with the PMBOK Guide 5th Edition for project planning 5. A quality management plan which will contain quality objectives, quality standards, quality control and assurance activities, quality roles and responsibilities, quality tools to be used and a plan for reporting problems. 6. A human resource management plan which will contain roles and responsibilities, the projects organization chart and the staff management plan. 7. A communications management plan which will contain stakeholder communication requirements, information to be communicated, person responsible for communicating the information, person authorized to release information, person to receive information, flow charts for the information flow on the project, methods to convey information and communication constraints. 8. A risk management plan which will contain the methodology to perform risk management, roles and responsibilities, budget needs, how often risk management processes will be performed, risk categories, definitions of risk probability and impact, stakeholder tolerances and reporting formats. 9. A procurement management plan which will describe how the project team will acquire goods and services external to the organization in accordance with the PMBOK Guide 5th Edition for

project planning;

10. A stakeholder management plan which will identify stakeholders and document the management strategies required to effectively engage stakeholders.

Assumptions

1. It is assumed that the PCU will authorize the use of the Grenada Tourism Enhancement Project for the development of this Final Graduation Project (FGP).
2. It is assumed that all supporting documentation required to develop the Project Management Plan will be made available by the PCU.
3. It is assumed that information that is provided by the PCU to develop the FGP will be helpful.
4. It is assumed that there will be no additions to the scope of the project during the development of the FGP.
5. It is assumed that all the finances are in place to undertake the development of the FGP.
6. It is assumed that there is sufficient time to complete the FGP.
7. It is assumed that the channels of communication will be clear on the FGP outlines.
8. It is assumed that all stakeholders in particular Physcial Planning Unit and Civil Society will approve the scope of works to be undertaken for the Rehabilitation of Fort George.
9. It is assumed that the public will support the scope of works to undertake the Rehabilitation of Fort George.
10. It is assumed that there will be no language and cultural barrier in the development of this FGP during consultations with the experts/stakeholders.

Constraints

1. The development of the Project Management Plan for the Grenada Tourism Enhancement Project will need to comply with the dates and timeframe established by the University.
2. Confidential information will not be used in the development of the Project Management Plan for the Construction of the Grenada Tourism Enhancement Project.
3. Stakeholders and experts would need to be engaged within the timeframe set to complete the FGP.
4. The time the Physical Planning Unit takes to review scope requests and provide approvals to developmental projects.
5. Price fluctuations during the development of the FGP may affect the project budget.

6. Disagreement among stakeholders.

Preliminary risks

1. Learning curve may result in the misinterpretation of requirements impacting the quality and schedule of the FGP.
2. Lecturers' busy schedule may delay clarification of queries impacting the schedule to complete the components of the FGP.
3. If students cannot allocate sufficient time to produce the FGP, this may affect the ability to meet milestones impacting the quality of deliverables.
4. Negative results of Environmental Impact Assessment may cause project relocation impacting FGP scope definition and schedule.
5. Opportunity – The Grenada Tourism Enhancement Project development may spur interest groups to provide resources, expertise and additional finances to enhance the quality.

Budget

The cost to develop the Project Management Plan for the Grenada Tourism Enhancement Project is $1500.00 USD. This cost takes into consideration the printing of information to undertake the analysis, printing the final document, paying the Philologist for document review and a Courier service to deliver the FGP to the University.

Milestones and dates

Milestone	Start date	End date
Start of Final Graduation Project	June 26, 2017	June 26, 2017
Graduation Seminar Approval	July 28, 2017	July 28, 2017
Assignment of Tutor	September 13, 2017	December 12, 2017
Tutor Approval FGP	December 12, 2017	December 12, 2017
Start of Reading by Reviewers	December 13, 2017	December 13, 2017
Start of Presentation to Board of Examiners	January 31, 2018	February 6, 2018
Final Graduation Project End	February 6, 2018	February 6, 2018

Relevant historical information

The Project Coordination Unit is a subsidiary department of the Ministry of Finance & Energy which functions as a Project Management Office. It was established twenty years ago to implement developmental projects which are funded by International Donor Agencies such as the International Bank for Reconstruction and Development, the World Bank and the Caribbean Development Bank among

others.

The unit is very small and comprises ten persons which include a Project Coordinator, Project Manager, Project Engineer, Procurement Officer, Assistant Procurement Officer, Social Development Specalist, two Financial Specalist, an Accounts Officer and Secretary.

There is no documentation of similar works (Project Management Plan) that have been undertaken by the unit, therefore its development is of great importance of the unit as it will add to the organizational process assets of the unit and act as a baseline to guide the development of future management plan.

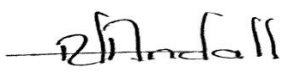
Stakeholders

Direct stakeholders:

1. Project Sponsor – International Bank for Reconstruction and Development -IDB
2. Project Team – Procurement Officer, Engineer, Project Manager, Project Coordinator, Financial Specalist
3. The Ministry of Tourism and Ministry of Finance
4. Design & Construction Firm
5. The public

Indirect stakeholders:

1. Civil Society
2. Engineering Society
3. Physical Planning Unit

Project Manager: Najar Andall	**Signature:** 
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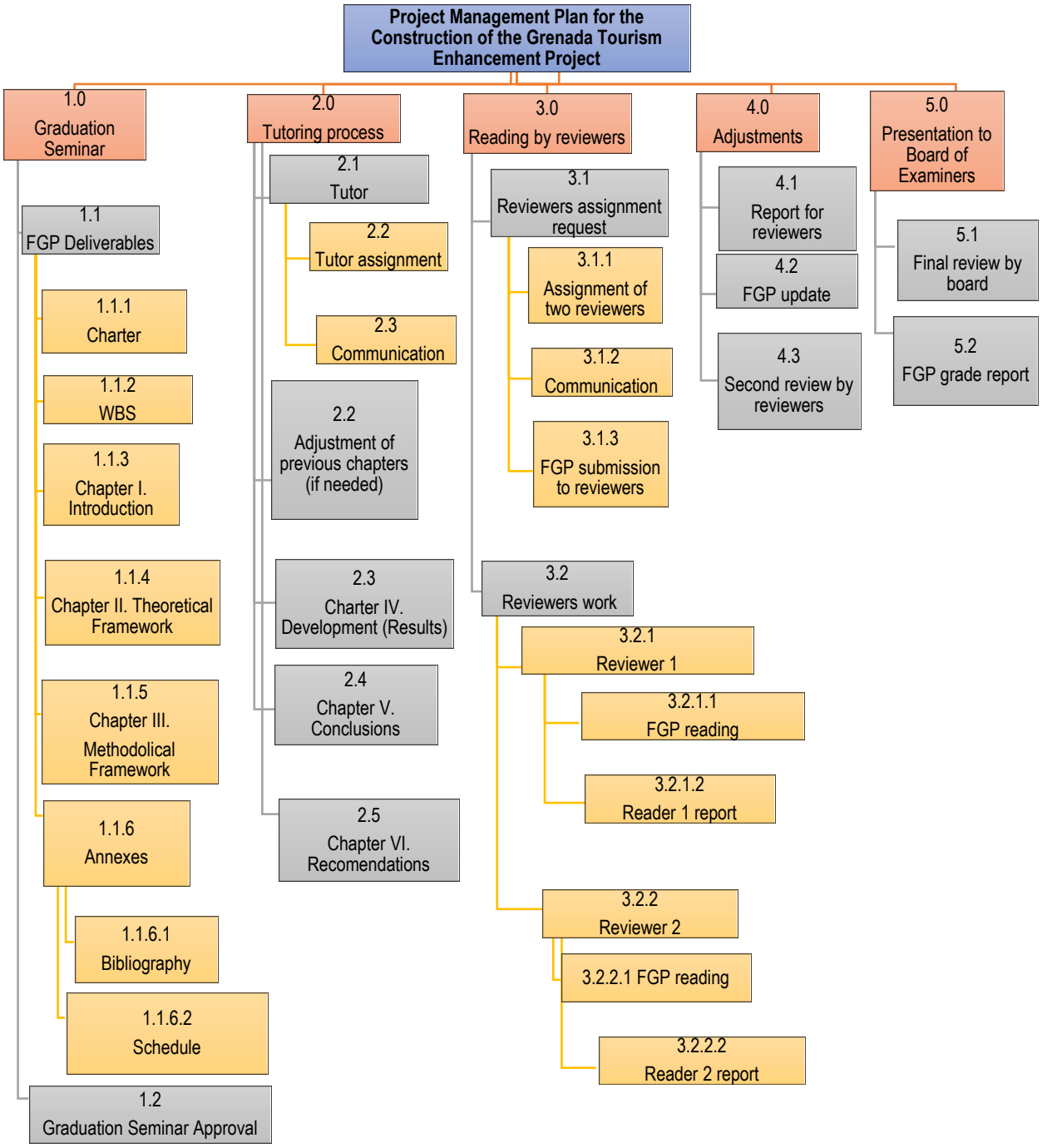
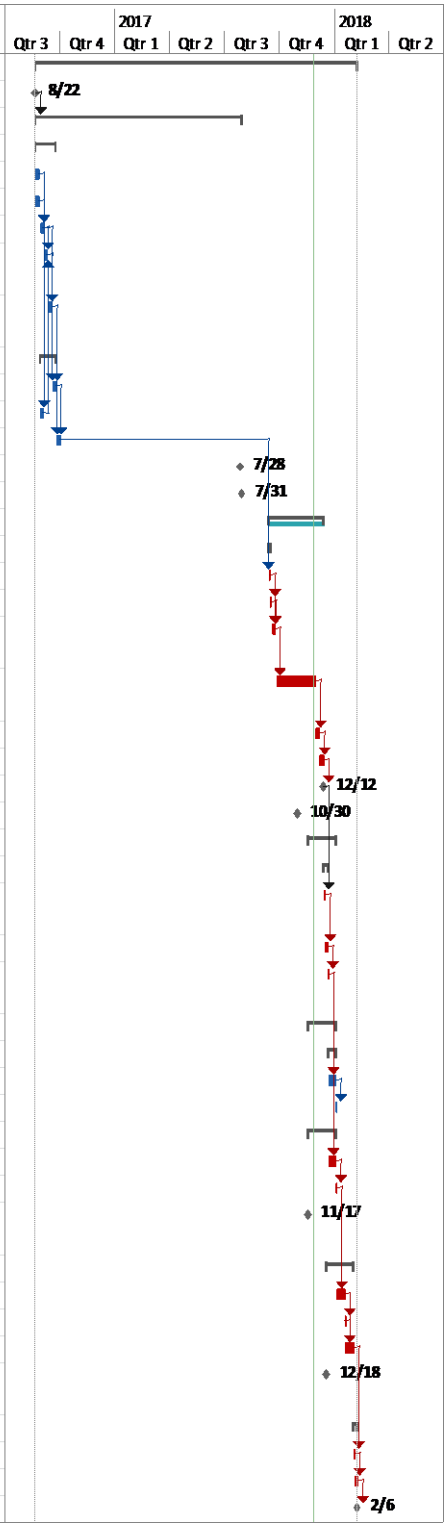
Appendix 2: FGP WBS



Appendix 3: FGP Schedule

ID	Task Mode	Task Name	Duration	Start	Finish
1		**Final Graduation Project**	**382 days**	**Mon 8/22/16**	**Tue 2/6/18**
2		FGP Start	0 days	Mon 8/22/16	Mon 8/22/16
3		**1,Graduation Seminar**	**245 days**	**Mon 8/22/16**	**Mon 7/31/17**
4		**1.1,FGP Deliverables**	**25 days**	**Mon 8/22/16**	**Fri 9/23/16**
5		1.1.1,Charter	5 days	Mon 8/22/16	Fri 8/26/16
6		1.1.2,WBS	5 days	Mon 8/22/16	Fri 8/26/16
7		1.1.3,Chapter I. Introduction	5 days	Mon 8/29/16	Fri 9/2/16
8		1.1.4,Chapter II. Theoretical framework	5 days	Mon 9/5/16	Fri 9/9/16
9		1.1.5,Chapter III. Methodological framework	5 days	Mon 9/12/16	Fri 9/16/16
10		**1.1.6,Annexes**	**20 days**	**Mon 8/29/16**	**Fri 9/23/16**
11		1.1.6.1,Bibliography	5 days	Mon 9/19/16	Fri 9/23/16
12		1.1.6.2,Schedule	5 days	Mon 8/29/16	Fri 9/2/16
13		1.2,Graduation Seminar approva	5 days	Mon 9/26/16	Fri 9/30/16
14		Graduation Seminar Approval	0 days	Fri 7/28/17	Fri 7/28/17
15		Start of Tutoring process	0 days	Mon 7/31/17	Mon 7/31/17
16		**2,Tutoring process**	**65 days**	**Wed 9/13/17**	**Tue 12/12/17**
17		**2.1,Tutor**	**3 days**	**Wed 9/13/17**	**Fri 9/15/17**
18		2.1.1,Tutor assigment	1 day	Wed 9/13/17	Wed 9/13/17
19		2.1.2,Communication	2 days	Thu 9/14/17	Fri 9/15/17
20		2.2,Adjustments of previous chapters (If needed)	5 days	Mon 9/18/17	Fri 9/22/17
21		2.3,Charter IV. Development (Results)	47 days	Mon 9/25/17	Tue 11/28/17
22		2.4,Chapter V. Conclusions	5 days	Wed 11/29/17	Tue 12/5/17
23		2.5,Chapter VI. Recommendatio	5 days	Wed 12/6/17	Tue 12/12/17
24		Tutor approval	0 days	Tue 12/12/17	Tue 12/12/17
25		Start of Reading by reviewers	0 days	Mon 10/30/17	Mon 10/30/17
26		**3,Reading by reviewers**	**33 days**	**Fri 11/17/17**	**Tue 1/2/18**
27		**3.1,Reviewers assigment reques**	**5 days**	**Wed 12/13/17**	**Tue 12/19/17**
28		3.1.1,Assigment of two reviewers	2 days	Wed 12/13/17	Thu 12/14/17
29		3.1.2,Communication	2 days	Fri 12/15/17	Mon 12/18/17
30		3.1.3,FGP submission to reviewers	1 day	Tue 12/19/17	Tue 12/19/17
31		**3.2,Reviewers work**	**33 days**	**Fri 11/17/17**	**Tue 1/2/18**
32		**3.2.1,Reviewer**	**10 days**	**Wed 12/20/17**	**Tue 1/2/18**
33		3.2.1.1,FGP reading	9 days	Wed 12/20/17	Mon 1/1/18
34		3.2.1.2,Reader 1 report	1 day	Tue 1/2/18	Tue 1/2/18
35		**3.2.2,Reviewer**	**33 days**	**Fri 11/17/17**	**Tue 1/2/18**
36		3.2.2.1,FGP reading	9 days	Wed 12/20/17	Mon 1/1/18
37		3.2.2.2,Reader 2 report	1 day	Tue 1/2/18	Tue 1/2/18
38		Submission of Reader 1 & 2 reports	0 days	Fri 11/17/17	Fri 11/17/17
39		**4,Adjustments**	**32 days**	**Mon 12/18/17**	**Tue 1/30/18**
40		4.1,Report for reviewers	9 days	Wed 1/3/18	Mon 1/15/18
41		4.2,FGP update	1 day	Tue 1/16/18	Tue 1/16/18
42		4.3,Second review by reviewers	10 days	Wed 1/17/18	Tue 1/30/18
43		Start of Presentation to Board of Examiners	0 days	Mon 12/18/17	Mon 12/18/17
44		**5,Presentation to Board of Examin**	**5 days**	**Wed 1/31/18**	**Tue 2/6/18**
45		5.1,Final review by board	2 days	Wed 1/31/18	Thu 2/1/18
46		5.2,FGP grade report	3 days	Fri 2/2/18	Tue 2/6/18
47		FGP End	0 days	Tue 2/6/18	Tue 2/6/18



Appendix 4: Qualiity Control Measurement

Qualtiy Control Measurement

CONTRACTOR'S QUALITY CONTROL REPORT (CQCR) WEEKLY LOG OF CONSTRUCTION	Report Number: Page 1 of 2 Date:
Project Name:	**Project Number:**
Contractor:	**Weather:**
1 – Were there any delays in work progress?	
Response:	
2 – Verbal instructions given by MSDGC:	
Response:	
3 – Did anything develop that may lead to a change order/claim?	
Response:	
4 – Activities in process:	
Response:	
5 – General comments:	
Response:	
6 – Safety Inspection/Safety Meetings:	
Response:	
7 – Prep/Initial Dates (Preparatory and initial dates held and advance notice)	

CONTRACTOR'S QUALITY CONTROL REPORT (CQCR) WEEKLY LOG OF CONSTRUCTION	Report Number: Page 1 of 2
	Date:
Project Name:	**Project Number:**
Contractor:	**Weather:**
Response:	

CONTRACTOR'S QUALITY CONTROL REPORT (CQCR) WEEKLY LOG OF CONSTRUCTION	Report Number: Page 2 of 2
	Date:
Project Name:	**Project Number:**
Activity Start/Finish:	
QC Requirements:	
QA/QC Punch List:	
Contractors/Visitors on Site:	
Equipment Hours (Total Operating Hours to Date):	

CONTRACTOR'S QUALITY CONTROL REPORT (CQCR) WEEKLY LOG OF CONSTRUCTION	Report Number: Page 1 of 2
	Date:
Project Name:	**Project Number:**
Contractor:	**Weather:**

Accident Reporting (Describe Accident):	
Contractor Certification	On behalf of the contractor, I certify that this report is complete and correct and all equipment and material used and work performed during this reporting period are in compliance with the contract, plans and specifications, to the best of my knowledge, except as noted above.

Non-Conformance Report			
<Project Name>			<Project Number>
Structural ☐	Mechanical ☐	Electrical ☐	Civil ☐
Date:	**Location:**	**Spec. Section:**	**Spec. Paragraph:**

Non-Conformance Report			
<Project Name>			<Project Number>
Structural ☐	Mechanical ☐	Electrical ☐	Civil ☐
Date:	Location:	Spec. Section:	Spec. Paragraph:
Non-Conforming Condition:			
Reported By (Quality Control Representative):			Date:
Disposition:			
Dispositioned By (Project Engineer):			Date:
Re-Inspected By (Quality Control Representative):			Date:
Accepted By (Quality Control Manager):			Date:

Initial Inspection Checklist			
Project Name:			**Project Number:**
DFOW:			
Date:	**Sheet:**	**Spec. Section:**	**Page: ___ of ___**

No.	Item	Yes	No	N/A
1	Was the production foreman present?			
2	Material			
a)	Were materials inspected for compliance?			
b)	Were corrective actions taken for defective material?			
c)	Were corrective actions appropriate?			
d)	Were any deviations accepted?			
3	Installation Requirements			
a)	Did work comply with specifications or plans?			
b)	Was workmanship satisfactory?			
c)	Were corrective actions appropriate?			
d)	Were any deviations accepted?			
4	Tests			
a)	Were tests being performed?			
b)	Was testing frequency satisfactory?			
c)	Were test samples or locations appropriate?			
d)	Was testing quality coordinated with			
5	Inspections			
a)	Was inspection done by the QC Inspector in the Prep.			
b)	Was the inspection frequency as established in the Prep.			
c)	Were critical inspections satisfactory?			
d)	Was the inspection satisfactory?			
6	Safety			
a)	Was the safety officer present?			
b)	Were the safety requirements followed?			
c)	Were the safety requirements modified?			
Remarks (explanations required for “No” responses and if deviations were accepted):				

Initial Inspection Checklist			
Project Name:			**Project Number:**
DFOW:			
Date:	**Sheet:**	**Spec. Section:**	**Page: ___ of ___**

Reported By: (Quality Control Inspector)	Reviewed By: (Quality Control Manager)	Reviewed By: (Quality Assurance Representative)

Appendix 5 : Change Management Plan

GRENADA TOURISM ENHANCEMENT PROJECT CHANGE MANAGEMENT PLAN

Introduction

This Change Management Plan was created for GTEP in order to set expectations on how the approach to changes will be managed, what defines a change, the purpose and role of the change control board, and the overall change management process. All stakeholders will be expected to submit or request changes in accordance with this Change Management Plan and all requests and submissions will follow the process detailed herein.

Change Management Approach

The Change Management approach for this project will ensure that all proposed changes are defined, reviewed, and agreed upon so they can be properly implemented and communicated to all stakeholders. This approach will also ensure that only changes within the scope of this project are approved and implemented.

The Change Management approach is not to be confused with the Change Management Process which will be detailed later in this plan. The Change Management approach consists of three areas:

- Ensure changes are within scope and beneficial to the project
- Determine how the change will be implemented
- Manage the change as it is implemented

The Change Management process has been designed to make sure this approach is followed for all changes. By using this approach methodology, the project team

will prevent unnecessary changes from occurring and focus its resources only on beneficial changes within the project scope.

Definition of Change

There are several types of changes which may be requested and considered for this project. Depending on the extent and type of proposed changes, adequate documentation and the communication of these changes will be required to include any approved changes into the project plan and ensure all stakeholders are notified.

Types of changes include:

- Scheduling Changes: changes which will impact the approved project schedule. These changes may require fast tracking, crashing, or re-baselining the schedule depending on the significance of the impact.
- Budget Changes: changes which will impact the approved project budget. These changes may require requesting additional funding, releasing funding which would no longer be required, or adding to project or management reserves. May require changes to the cost baseline.
- Scope Changes: changes which are necessary and impact the project's scope which may be the result of unforeseen requirements which were not initially planned for. These changes may also impact budget and schedule. These changes may require revision to WBS, project scope statement, and other project documentation as necessary.

The project manager must ensure that any approved changes are communicated to the project stakeholders. Additionally, as changes are approved, the project manager must ensure that the changes are captured in the project documentation where necessary. These document updates must then be communicated to the project team and stakeholders as well.

The Change Control Board

The Change Control Board (CCB)/Project Steering Committee is the approval authority for all proposed change requests pertaining to this project. The purpose of the CCB is to review all change requests, determine their impacts on the project risk, scope, cost, and schedule, and to approve or deny each change request. Members of the CCB will include the Permanent Secretary of Finance & Tourism, Chief Tourism Planner, Project Coordinator & Manager and Project Engineer.

As change requests are submitted to the Project Manager by the project team/stakeholders, the Project Manager will log the requests on a change request form in the change log file and the CCB will convene every other Friday to review all change requests. For a change request to be approved, all CCB members must vote in favor. In the event more information is needed for a particular change request, the request will be deferred and sent back to the requestor for more information or clarification. If a change is deemed critical, an ad hoc CCB meeting can be called in order to review the change prior to the next scheduled bi-weekly CCB meeting.

Roles & Responsibilities

The following are the roles and responsibilities for all change management efforts related to the IS Project:

Project Sponsor:

- Approve all changes to budget/funding allocations
- Approve all changes to schedule baseline
- Approve any changes in project scope

Project Manager:

- Receive and log all change requests from project stakeholders
- Conduct preliminary risk, cost, schedule, scope analysis of change prior to CCB
- Seek clarification from change requestors on any open issues or concerns
- Make documentation revisions/edits as necessary for all approved changes
- Participate on CCB

Project Team / Stakeholders

- Submit all change requests on standard organizational change request forms
- Provide all applicable information and detail on change request forms
- Be prepared to address questions regarding any submitted change requests
- Provide feedback as necessary on impact of proposed changes

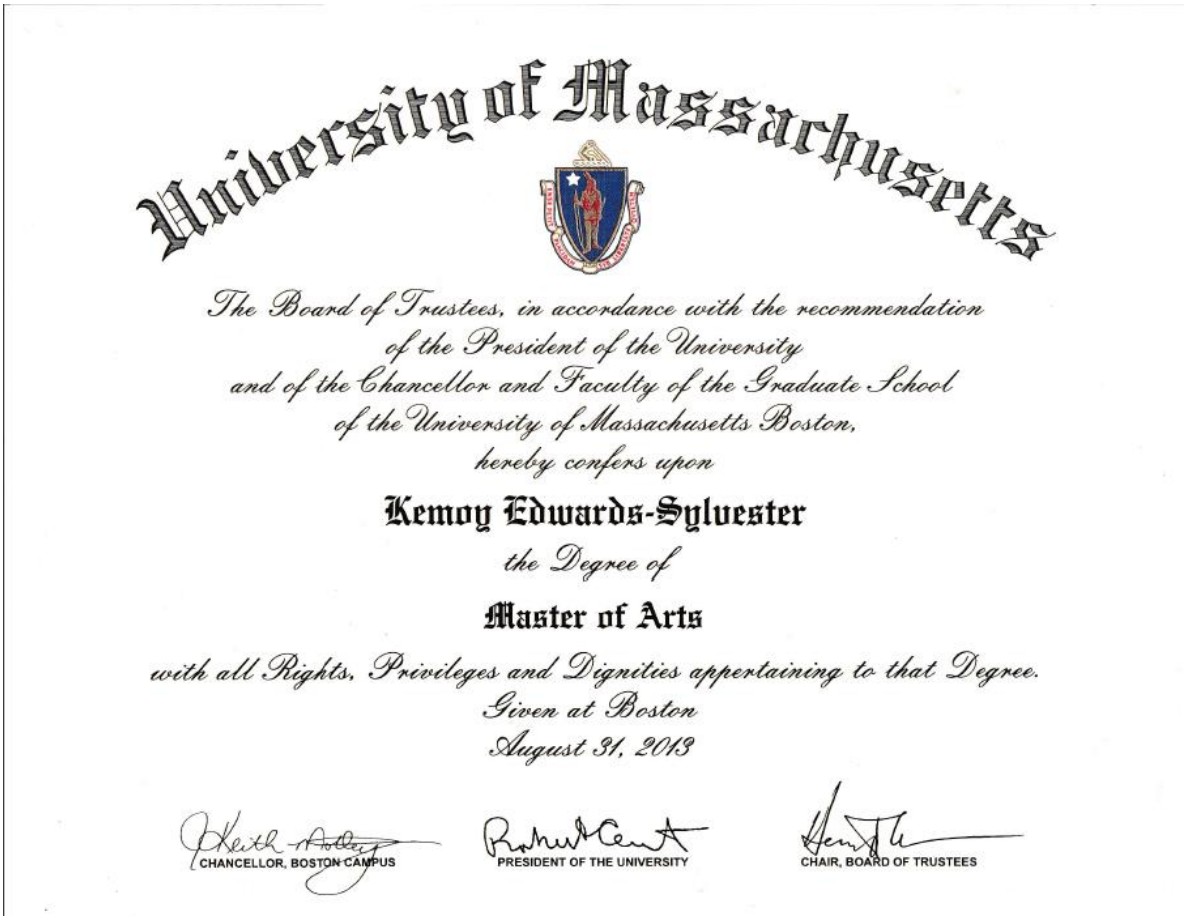
Change Control Process

The Change Control Process for this project will follow the organizational standard change process for all projects. The project manager has overall responsibility for executing the change management process for each change request.

1. Identify the need for a change (Stakeholders) – Change requestor will submit a completed change request form to the project manager.
2. Log change in the change request register (Project Manager) – The project manager will keep a log of all submitted change requests throughout the project's lifecycle.
3. Evaluate the change (Project Manager, Team, Requestor) – The project manager will conduct a preliminary analysis on the impact of the change to risk, cost, schedule, and scope and seek clarification from team members and the change requestor.
4. Submit change request to CCB (Project Manager) – The project manager will submit the change request, as well as the preliminary analysis, to the CCB for review.

5. Obtain Decision on change request (CCB) – The CCB will discuss the proposed change and decide whether or not it will be approved based on all submitted information.
6. Seek Acceptance from Project Sponsor
7. Implement change (Project Manager) – If a change is approved by the Project Sponsor, the project manager will update and re-baseline project documentation as necessary.

Appendix 6: Philologist Qualification – Masters Degree in Applied Linguistics



University of Massachusetts

The Board of Trustees, in accordance with the recommendation
of the President of the University
and of the Chancellor and Faculty of the Graduate School
of the University of Massachusetts Boston,
hereby confers upon

Kemoy Edwards-Sylvester

the Degree of

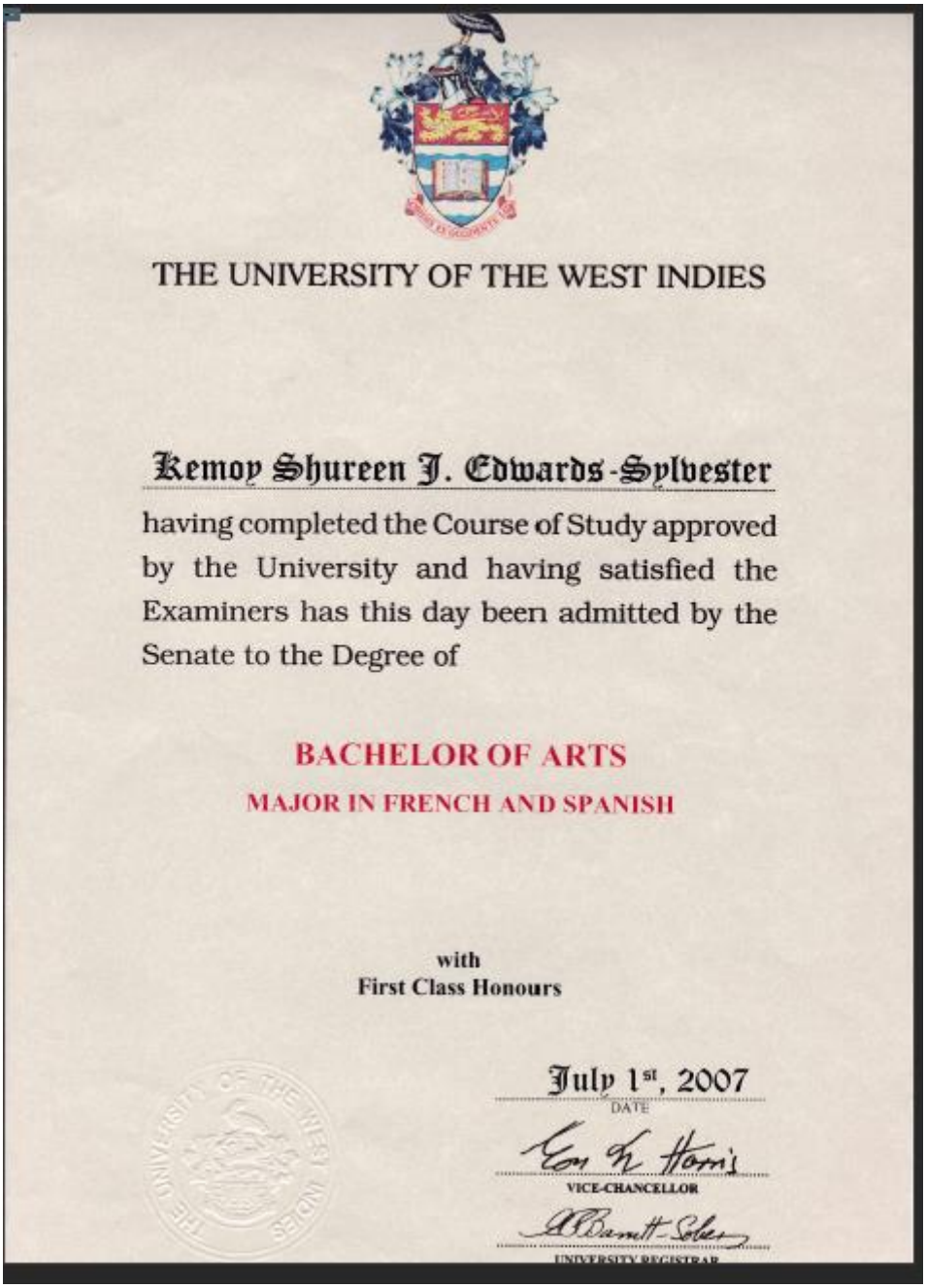
Master of Arts

with all Rights, Privileges and Dignities appertaining to that Degree.
Given at Boston
August 31, 2013

CHANCELLOR, BOSTON CAMPUS

PRESIDENT OF THE UNIVERSITY

CHAIR, BOARD OF TRUSTEES



THE UNIVERSITY OF THE WEST INDIES

Kemoy Shureen J. Edwards-Sylvester

having completed the Course of Study approved by the University and having satisfied the Examiners has this day been admitted by the Senate to the Degree of

BACHELOR OF ARTS

MAJOR IN FRENCH AND SPANISH

with
First Class Honours

July 1st, 2007
DATE

VICE-CHANCELLOR

UNIVERSITY REGISTRAR

THE UNIVERSITY OF THE WEST INDIES

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July 1st, 2007
DATE

VICE-CHANCELLOR

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UMASS BOSTON

UNIVERSITY OF MASSACHUSETTS BOSTON
OFFICE OF THE REGISTRAR
100 Morrissey Boulevard
Boston, MA 02125-3393
United States

Official
Name: Kenoy Edwards-Sylvester
Student ID: 01264772

David Cesaris
Registrar

Print Date: 09/21/2021
Send To: Edwards-Sylvester,Kenoy
New Hampshire
St. George's
West Indies
Grenada
Grenada

Degree: Master of Arts
Confer Date: 2013-08-31
Plan: Applied Linguistics, Major

End of Official

--------- Beginning of Graduate Record ---------

2011 Fall

Program: Liberal Arts - Graduate
Plan: Applied Linguistics, Major

Course		Description	Credits	Grade
APLING	661	Linguistics	3.00	B+
APLING	651	Cross-Cultural Persp	3.00	A
APLING	612	Designing Cll Leg Cu	3.00	B

TERM GPA: 3.430 TERM CREDIT TOTALS: 9.00
CUM GPA: 3.430 CREDIT TOTALS: 9.00

2012 Spring

Program: Liberal Arts - Graduate
Plan: Applied Linguistics, Major

Course		Description	Credits	Grade
APLING	606	Theo&Prins Lang Tch	3.00	A
APLING	611	Meths&Mat Prgm Leg In	3.00	A
APLING	670	Technology In Educ	3.00	A

TERM GPA: 4.000 TERM CREDIT TOTALS: 9.00
CUM GPA: 3.717 CREDIT TOTALS: 18.00

2012 Fall

Program: Liberal Arts - Graduate
Plan: Applied Linguistics, Major

Course		Description	Credits	Grade
APLING	614	Found Bil/Multi Educ	3.00	A
APLING	631	Psycholinguistic s	3.00	A
APLING	625	Sociolinguistic s	3.00	A

TERM GPA: 4.000 TERM CREDIT TOTALS: 9.00
CUM GPA: 3.811 CREDIT TOTALS: 27.00

2013 Spring

Program: Liberal Arts - Graduate
Plan: Applied Linguistics, Major

Course		Description	Credits	Grade
APLING	635	Literacy & Culture	3.00	A

Capstone requirement: Comprehensive exam passed May, 2013

TERM GPA: 4.000 TERM CREDIT TOTALS: 3.00
CUM GPA: 3.810 CREDIT TOTALS: 40.00

Degrees Awarded

11/3/2015
EXAM

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REGISTRAR OF EXAMINATIONS

To be official, this document must be received directly from the University of Massachusetts Boston, or in an envelope with the signature of the Registrar across the back flap of the envelope. The face of this document must carry the university logo and the signature of the Registrar at the top; a raised seal not required. The transcript is printed on white paper with blue ink. This record is for the use of the

THE UNIVERSITY OF THE WEST INDIES

Campus: St. Augustine, Trinidad W.I.

Student No: 04722705 Date of Birth: 03-MAY-1983 Date Issued: 01-MAR-2010

Record of: Kemoy Shureen Josel Edwards-Sylvester
Current Name: Kemoy Shureen Josel Edwards-Sylvester
*** WARNING ***
--No Address--

Issued To: Kemoy Edwards-Sylvester
New Hampshire
St George
Grenada

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REGISTRAR OF EXAMINATIONS

Course Level: Undergraduate
Only Admit: 2004/2005 Semester I

Current Programme
Bachelor of Arts
College : Humanities & Education
Campus : St Augustine
Major : French
Spanish

Degrees Awarded Bachelor of Arts 01-JUL-2007
Ehrs: 54.00 QualHrs: 54.00 GPts: 212.10 GPA: 3.93
Primary Degree
Major : French
Spanish
Inst. Honors: First Class Honours

SUBJ	NO.	COURSE TITLE	CRED	GRD	PTS	R
INSTITUTION CREDIT:						
2004/2005 Semester I						
Humanities & Education						
French						
F	14A	French Language IA	3.00	A	12.00	
FD	10A	English for Academic Purposes	3.00	P	0.00	
S	15A	Spanish Language IA	3.00	B+	9.90	
Ehrs: 9.00 QualHrs: 6.00 GPts: 21.90 GPA: 3.65						
2004/2005 Semester II						
Humanities & Education						
French						

********** CONTINUED ON NEXT COLUMN **********

SUBJ	NO.	COURSE TITLE	CRED	GRD	PTS	R
Institution Information continued:						
F	14B	French Language IB	3.00	A	12.00	
F	150	Intro. to Lit. in French	6.00	A	24.00	
FOUN	1102	Academic Writing: Disciplines	3.00	P	0.00	
S	15B	Spanish Language IB	3.00	B	9.00	
SPAN	1699	Intro to Hispanic Literature	6.00	A-	22.20	
Ehrs: 21.00 QualHrs: 18.00 GPts: 67.20 GPA: 3.73						
Good Standing						
2005/2006 Semester I						
Humanities & Education						
French						
FOUN	1301	Law, Governance, Econ & Soc	3.00	P	0.00	
FREN	2401	French Language IIA	3.00	A-	11.10	
FREN	2608	French Caribbean Women Writers	3.00	A	12.00	
SPAN	2001	Spanish Language IIA	3.00	A	12.00	
SPAN	2603	Hispanic Lit: Death	3.00	A	12.00	
Ehrs: 15.00 QualHrs: 12.00 GPts: 47.10 GPA: 3.93						
Good Standing						
2005/2006 Semester II						
Humanities & Education						
French						
FOUN	1210	Sci, Med and Tech In Society	3.00	P	0.00	
FREN	2402	French Language IIB	3.00	A	12.00	
FREN	2607	Post Romantic French Poetry	3.00	A	12.00	
SPAN	2002	Spanish Language IIB	3.00	A	12.00	
SPAN	2713	20thC Mexican Lit and Culture	3.00	B+	9.90	
Ehrs: 15.00 QualHrs: 12.00 GPts: 45.90 GPA: 3.83						
Good Standing						

********** CONTINUED ON PAGE 2 **********

MINISTRY OF EDUCATION GRENADA
11/3/2015
EXAM

REGISTRAR
DATE March 1, 2010

THE UNIVERSITY OF THE WEST INDIES

Campus: St. Augustine, Trinidad W.I.

Student No: 04722705 Date of Birth: 03-MAY-1983 Date Issued: 01-MAR-2010

Record of: Kemoy Shureen Josel Edwards-Sylvester Page: 2
Level: Undergraduate

SUBJ NO.	COURSE TITLE	CRED	GRD	PTS	R
Institution Information continued:					
2006/2007 Semester I					
Humanities & Education					
French					
FREN 3004	Postwar Fr Fiction Thtre & Flm	3.00	A+	12.90	
FREN 3401	French Language IIIA	3.00	A	12.00	
SPAN 3001	Spanish Language IIIA	3.00	A-	11.10	
SPAN 3604	Major Spanish American Writers	3.00	A	12.00	
Ehrs: 12.00	QualHrs: 12.00 GPts: 48.00		GPA: 4.00		
Good Standing					
2006/2007 Semester II					
Humanities & Education					
French					
FREN 3402	French Language IIIB	3.00	A	12.00	
FREN 3501	The French Caribbean Novel	3.00	A	12.00	
HUMN 3099	Caribbean Studies Project	6.00	A	24.00	
SPAN 3002	Spanish Language IIIB	3.00	A-	11.10	
SPAN 3705	Venezuelan Theatre	3.00	A	12.00	
Ehrs: 18.00	QualHrs: 18.00 GPts: 71.10		GPA: 3.95		
Good Standing					

********** TRANSCRIPT TOTALS **********

	Earned Hrs	GPA Hrs	Points	GPA
TOTAL INSTITUTION	90.00	78.00	301.20	3.86
TOTAL TRANSFER	0.00	0.00	0.00	0.00
OVERALL	90.00	78.00	301.20	3.86

********** END OF TRANSCRIPT **********

MINISTRY OF EDUCATION GRENADA 11/3/2015 EXAM

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REGISTRAR :

DATE March 1, 2010

Original transcripts bear an impressed seal and an original signature. This record is released with the consent of the student, and is not to be forwarded to any third party without the consent of the student. Information to assist in evaluating the transcript is on the reverse side.

THE UNIVERSITY OF THE WEST INDIES

CCREDITATION

e University of the West Indies is a member of the Association of Commonwealth Universities, the Association of Atlantic Universities and the International Association of iversities, Association of Caribbean Universities and Research Institutes (UNICA), Inter-American University Council for Economic and Social Development (CUIDES).

e following notes are to assist the reader with the interpretation of the transcript. (For all Faculties except Medical Sciences).

ACADEMIC YEAR

rting in 1990/1991 the UWI roduced a semester system. Each nester consists of 16 weeks which lude 2-3 weeks for examinations, and mid-semester break. The academic ar is composed as follows:

mester I September - December
mester II January – May
mmer Session July – August (5 eks)
ior to 1990/1991 the academic year s divided into three terms and courses tended over the entire year of 26 aching weeks.

GRADING SCHEMES GRADE POINT AVERAGE (GPA)

e Grade Point Average System will ply to students who started Certificate d Degree Programmes in the academic ar 2003/2004 and shall correspond to Points System as follows:

aculties of Humanities & ducation, Social Sciences, ience & Agriculture:

RADE	GPA	MARKS
+	4.3	86 +
	4.0	70-85
-	3.7	67-69
+	3.3	63-66
	3.0	60-62
-	2.7	57-59
+	2.3	53-56
	2.0	50-52
-	1.7	47-49
+	1.3	43-46
	1.0	40-42
	0.0	0-39

aculty of Engineering:

RADE	GPA	MARKS
+	4.3	80-100
	4.0	70-79
-	3.7	67-69
+	3.3	63-66
	3.0	60-62
-	2.7	57-59
+	2.3	53-56
	2.0	50-52
-	1.7	47-49
+	1.3	43-46
	1.0	40-42
	0.0	0-39

GRADING SCHEMES PRIOR TO 2003/2004

For all Faculties standing in courses are shown by alphabetical grades with the following percentage equivalent.

Humanities & Education, Law, Social Sciences, Engineering, Science & Agriculture

GRADE	%EQUIVALENT
A	70 – 100
B+	60 - 69
B	50 - 59
C	40 - 49
Fail	0 - 39

The School of Science in the Faculty of Science & Agriculture and the School of Education in the Faculty of Humanities & Education have different grading schemes which is indicated as well

SCHOOLS OF EDUCATION & SCIENCE

GRADE	%EQUIVALENT
A+	86 – 100
A	76 - 85
A-	70 - 75
B+	60 - 69
B	55 - 59
B-	50 - 54
C+	47 - 49
C	43 - 46
C-	40 - 42
E	0 - 39

NATURAL SCIENCES (Now SCIENCE) PRIOR TO 1982

GRADE	%EQUIVALENT
A+	71 – 100
A	65 - 70
A-	62 - 64
B+	55 - 61
B	50 - 54
B-	46 - 49
C+	42 - 45
C	37 - 41
C-	33 - 36
E	0 - 32

AGRICULTURE PRIOR TO JUNE 1974

GRADE	% EQUIVALENT
A	70 – 100
B+	60 - 69
B	50 - 59
C	40 - 49
FAIL	0 - 39

ENGINEERING PRIOR TO JANUARY 1996

GRADE	% EQUIVALENT
A	70 – 100
B+	60 - 69
B	50 - 59
C	40 - 49
FAIL	0 - 39

CREDIT VALUE DEFINITION

The basic unit of academic work is a semester course. Unless otherwise specified each semester course, successfully completed, equals 3 credits i.e. 36 hours of teaching which may include laboratory/tutorials. (See Faculty specific information sheet).

Summer Sessions: Full course credits have equivalent workloads but are concentrated into a shorter period of time.

AWARD OF DEGREES

Specific or General Degrees with the exception of the MBBS/DDS/DVM are classified as follows:

1st Class Honours	- 70%
Upper Second Class Honours	- 60%
Lower Second Class Honours	- 50%
*Third Class Honours	- 40%
Pass	
Fail	

*Engineering Only

GRADUATION

Degrees, Diplomas and Certificates are awarded 4 times per year.

Semester I	- February
Some Distance Teaching Programmes	- May
Semester II	- July
Summer Session/ Supplemental	- September

REQUIREMENTS FOR THE AWARD OF THE BACHELORS DEGREE

A minimum of 90 credits (normally equivalent to 30 semester courses):
(a) thirty credits Level I
(b) sixty credits Level II & III

Major: 30 credits from Levels II & III in subject areas
Double: 30 credits each in 2 subject areas – Levels II & III
Special: 54 credits from Levels II & III

For Graduates under the GPA Scheme:

Faculties of Humanities & Education, Social Sciences, Science & Agriculture:

Class of Degree	- Weighted GPA
1st Class Honours	- 3.60 and above
Upper Second Class Honours	- 3.00 – 3.59
Lower Second Class Honours	- 2.00 – 2.99
Pass	- 1.00 – 1.99

Faculty of Engineering:

1st Class Honours	- 3.60 and above
Upper Second Class Honours	- 3.00 – 3.59
Lower Second Class Honours	- 2.00 – 2.99
Third Class Honours	- 1.50 – 1.99
Pass	- 1.00 – 1.49

Level – A stage in a programme to which a course is appropriate (at UWI marked by the first digit in a course number).

MATRICULATION
All applicants must have a pass in English Language, CXC or GCE "O" Level or acceptable equivalent.

NORMAL MATRICULATION
FIVE subjects: At least TWO GCE 'A' Level passes, THREE CXC, Grade 1 or II General Proficiency Level or GCE "O" Level passes **OR FOUR** subjects: At least THREE "A" Level passes and ONE CXC Grade I or II General Proficiency or GCE "O" Level.

LOWER LEVEL MATRICULATION
For admission to preliminary courses in Agriculture and Science; 4 year courses in FHE and Social Sciences Five CXC or "O" Level subjects including some practical subjects. In addition, for some Faculties there are specific Faculty requirements. Further information on equivalencies can be supplied on request.

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MINISTRY OF EDUCATION GRENADA
17/3/2015
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