UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

PROJECT MANAGEMENT PLAN FOR THE RENOVATION OF THE CALIBISHIE BRANCH PROJECT OF THE MARIGOT COOPERATIVE CREDIT UNION MARIGOT; COMONWEALTH OF DOMINICA

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FINAL GRADUATION PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
MASTER IN PROJECT MANAGEMENT (MPM) DEGREE

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This Final Graduation Project was approved by the University as partial fulfillment of the requirements to opt for the Master in Project Management (MPM) Degree

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DEDICATION

I dedicate this Final Graduation Project to my Son Harvey Thomas and my daughter Sydney Thomas. I love you all dearly.

ACKNOWLEDGMENTS

I want to give God thanks for all his mercies throughout my life and for giving me the courage and determination to complete this project. I thank UCI for the knowledge, imparted, and my tutor Roger Valverde for his support and guidance. I want to extend special thanks to my colleague Sharon Vidal-Francis who encouraged me to undertake this program. I wish to extend sincere appreciation to my family members who have been there for me in every endeavor, which I pursued. Gratitude to the Marigot Cooperative Credit Union for the information received and the facilitation thus far.

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ABBREVIATIONS AND ACRONYMS

- AC actual cost
- ACP actual cost of work performed
- BAC budget at completion
- BOD board of directors
- BAC budget at completion
- CCB change control board
- COQ cost of quality
- CC credit committee
- CPM critical path method
- CU credit union
- DOC date of commencement
- FGP final graduation project
- GM general manager
- GS graduation seminar
- IR interest rate
- MCCU marigot cooperative credit union
- PM project manager
- PMBOK project management book of knowledge
- PMI project management institute
- PMO project management office
- PMP project management plan
- SOW statement of work
- SP supervisory committee
- TQM total quality management
- UCI Universidad para la cooperation internacional
- VAT value added tax
- WBS work break down structure

EXECUTIVE SUMMARY (ABSTRACT)

The Marigot Cooperative Credit Union (MCCU) has been in existence for 61 years and was a membership based-organization providing finanicial services, mainly to include savings, loans, insurance and many others. The main motto of the MCCU is “Not for profit, not for charity but to provide service for financial customers”. There were four branches which were located at various communities in the north east of the island of Dominica, West Indies. The Board of Directors wanted to grow the membership base and to improve share capital of the Calibishie branch. In order to become a member of the MCCU, it was then required that each individual purchased one share, which is valued at EC $50.00. The membership base of the the credit union was over 6000 local and foreign members.

One of the means of achieving the objective of increasing membership and share capital was to ensure that the branch office is conducive to serve members. It was deemed that the branch office in its present condition is not conducive and, as a result, a decision was taken to renovate the building. It is expected that following the completion of the building renovation, there will be a renewed confidence of members. Particularly, staff will be much more comfortable in a working environment which will facilitate improved performance.

Presently, there is no Project Management Office and as a result, projects undertaken were spear headed by the General Manager, with assistance from the other functional departments. In the past, projects were executed in an adhoc manner. Therefore, a formal management plan should be developed because this plan will be the central document that will define the basis for all the project works to be undertaken for the Calibishie Branch Renovation Project.

For the past decades, the Marigot Cooperative Credit Union has implemented a number of construction project without any formal developed project management tool, which resulted in uncontrolled, cost, scope, schedule and the deliverables were not always prepared within appropriate standards. The MCCU wants to successful execute the renovation of the Calibishie Branch Project. To achieve this success, a comprehensive management plan will guide the execution of the project. The plan will also provide for the development for other subsidiary documents, which will inform decision-making and allocation and management of resources. A project team with varying skills and competencies will be engaged to lead this complex project for a successful product delivery.

The purpose of the project was to develop a project management plan for the renovation of the Calibishie Branch of the Marigot Cooperative Credit Union. The Credit Union does not have a Project Management Office and as a result there are significant contraints on the Credit Union to adequately write projects or execute them in accordance with its strategic objectives

The Board deemed that the renovatiion project of the Calibishie Branch coldnot be implemented in an adhoc manner. Lessons learned from past projects, indicated that greater emphasis was placed mainly on budgeting and a deadline of handing over, and the other knowledge areas were not of much concern.

The general objective was to develop a project management plan as the formal management tool to guide the execution of the renovation of the Calibishie Branch project of the MCCU.

The specific objectives were to develop an integration management guide that shows how the processes are integrated thoughout the project phases; to develop a scope management plan that will outline the details of the work to be done; to develop a schedule management plan that will outline the schedule of activites to be completed within the required deadlines; to develop a cost management plan; which will guide the allocation of financial resources for the work to be done; within the approved budget, to develop a quality mangement plan which will outline the nature of the standards of the work to be done; to develop a human resource management plan which will outline the human resource allocation; to develop a communications management plan which outline the flow of information; to devlop a risk management plan which will outline the risks to be addressed; to develop a procurement management plan, which outline how goods and services will be sourced and purchased.

The methodology used for this research was analytical or explanatory in nature. Further analysis was conducted on the data gathered and critical evaluations of the materials were made for the development of the FGP. Most of the information for the development of the FGP will be drawn from the Project Management Book of Knowledge fifth edition (PMBOKguide). Meetings and interviews held with experts and other stakeholders affiliated with the renovation project of the MCCU Calibishie Branch will assist in the development of subsidiary documents of the Project Management Plan. This plan will guide the formal execution of the renovation project.

In conclusion, the MCCU does not have a project management office and as a result, significant challenges are encountered in executing projects according to the standards of (PMBOK Guide 5th edition). This plan will serve as new a methodology that will guide the project team on best practices of project management.

1. INTRODUCTION

1.1. Background

The Marigot Cooperative Credit Union (MCCU), which has been in existence for 61 years, is a membership-based organization which provide finanicial services, mainly to include savings, loans, insurance and many others. The main motto of the MCCU "is not for profit, not for charity but for service". There are four branches located at various communities in the north east of the island of Dominica, West Indies.

The Board of Directors wants to grow the membership base and to improve the share capital of the Calibishie branch. In order to become a member of the MCCU, individuals are required to purchase one share, which is valued at EC $50.00. The membership base of the the credit union is currently over 6000, foreign and local members.

One of the means of achieving the objective of increasing membership and share capital is to ensure that the branch office is conducive to serve members. As a result, the branch office was deemed inconducive to service in its pressent state and a decision was taken to renovate the building. It is hopeful that after the renovation is completed there will be a renewed confidence of members and that staff will be much more comfortable in a working environment that will facilitate improved performance.

Presently, the credit union has no Project Management Office and, as a result, projects undertaken are spear headed by the General Manager, with assistance from the other functional departments. In the past, projects have been undertaken in an adhoc manner, therefore, I am proposing that a formal management plan be developed. This plan will be the central document that will define the basis for all the project works to be undertaken for the Calibishie Branch Renovation Project.

1.2. Statement of the problem

For the past decades, the Marigot Cooperative Credit Union has implemented a number of construction projects without any formal developed project management tool, which resulted in uncontrolled, cost, scope; schedule and quality of deliverables were not always prepared within appropriate standards.

1.3. Purpose

The purpose of the project is to develop a project management plan, based on the fact that the Marigot Cooperative Credit Union doses not have a Project Management Office and as a result there are significant contraints on the credit union to adequately write projects or execute them in accordance with its strategic objectives.

The Board believed that a project of this magnitude couldnot be implemented in an adhoc manner. Lessons learned from past projects indicated, that, more emphasis was mainly placed on budgeting and completing deadlines, and the other knowledge areas were not addressed.

A proper management plan must be developed, inorder to guide the implementation and execution of this renovation to ensure that the deliverables prepared are within appropriate standards. One of the greatest benefits of this management plan,is that it will be used to develop procedures and policies to manage the knowledge areas to which the specific objectives and results will be linked . Another significant benefit of the project management plan is that it will be the tool for which the project will be used as a bench mark and lessons learned from the process will be documented for future implementation and execution of projects of the same nature.

The project management plan will seek to outline and develop the processes that will be used to implement this project.

The main benefits of this projects will be the following:

- There will be a greater chance of having a winning work, and a better delivery of the project.
- There will be a better cash flow control, ensuring the project remains alive.
- There will be elimination of inefficient and time consuming processes.
- There will be provision to optimize the project design and the construction schedule.
- There will be ehanced quality control, geared at reducing potential defects and poor workmanship.
- Management expertise will be applied for allocating resources whenever needed.
- The Marigot Cooperative Credit Union will have clear expectations of the project.
- The project scope will be controlled.
- The project team will be motivated as there will be formal guidelines and fewer unexpected surprises.
- There will be provision for a realistic and reliable budget for the project.

It is expected that the MCCU will be a satisfied customer, should the renovation project be successfully executed. The MCCU will improve its position with project implementation and will have a management tool for future reference.

General objective

The general objective for this project is to develop a project management plan as the formal management tool to guide the execution of the renovation of the Calibishie Branch Project of the MCCU.

1.4. Specific objectives

Specific Objectives:

- Develop an integration management plan by June 11th 2018, which will outline how the processes are integrated though out the project phases.

- Develop a scope management plan by June 11th 2018 ,which will outline the details of the work to be done.
- Develop a schedule management plan by June 11th 2018, which will outline the schedule of activites to be completed within the required deadlines.
- Develop a cost management plan by June 11th 2018, which will guide the allocation of financial resources for the work to be done within the approved budget.
- Develop a quality mangement plan by June 11th 2018, which will outline the nature of the standards of the work to be done.
- Develop a human resource management plan by June 11th 2018, which will outline the human resource allocation.
- Develop a communications management plan by June 11th 2018, which outline the flow of information.
- Devlop a risk management plan by June 11th 2018, which will outline the risks to be addressed.
- Develop a procurement management plan June 11th 2018, which will outline how goods and services will be sourced and purchased.
- Develop a stakeholders management plan by June 11th 2018, which outline the stakeholders and their influence.

2.1. Company/Enterprise framework

2.1.1. Company/Enterprise background

The MCCU is a membership oriented financial institution with the main responsibility, to provide a service to its members. The MCCU has always been involved in executing projects, relating to construction. However, the credit union does not have a project management office, and as a result, projects of construction nature have been executed without a comprehensive management tool such as a project management plan.

This is an opportunity to improve its standards of services by developing a project management plan, within the guide lines and standards of the PMI's and PMBOK Guide, (2013) which will be the main source guiding the development of the project management plan for the renovation of the Calibishie Branch Project.

2.1.2. Mission and vision statements

The Mission Statement of the MCCU is:
"An innovative financial institution established to serve the communities of the Marigot and the environs by providing competitive financial services while maintaining the highest standards and ensuring maximum member satisfaction".

The Vision Statement of the MCCU is:

"To be an autonomous association of persons united voluntarily to meet their common financial, economic, social and cultural needs and aspirations through a jointly owned and democratically controlled institution.

2.1.3. Organizational structure

Shareholding members own the Marigot Cooperative Credit Union. At every Annual General Meeting, they elect a Board of Directors, a Supervisory Committee and a Credit Committee to supervise and manage the affairs of the Credit Union. The Board employs a General Manager, Accountant and Compliance Officer. It is important to note that the Supervisory Committee is an independent committee and the General Manager is responsible for the other functional departments.

The Organizational Chart (Figure 1) will show that the General Manager handles the day-to-day affairs and supported by the functional departments to include;

- Accounts Department- Accountant, Accounts Supervisor, Accounts Clerks and members service representatives, Branch Supervisor
- Loans Department- Loans/Collections Supervisors, Senior and Junior Loan Officers, Collection Officers, Collections Assistant, Administrative Support Staff

- Recoveries and Collections Department- Recoveries Supervisor and Recoveries Officers
- Administrative and Compliance Department- Administrative Assistant, Receptionist, Office Attendant, Compliance Assistant, Maintenance Personnel
- Human Resource Department- Human Resource Officer, Human Resource Assistant, Driver/Messenger, Security Officer
- IT & Marketing Supervisor- IT & Marketing Supervisor, IT & Marketing Assistant, Online Member Service Representative, Generator Mechanic

The Marigot Cooperative Credit Union has a complement of thirty-nine employees that work in the various branches and interchange for a greater development and execution of competencies and flexibility.

MCCU ORGANIZATIONAL STRUCTURE

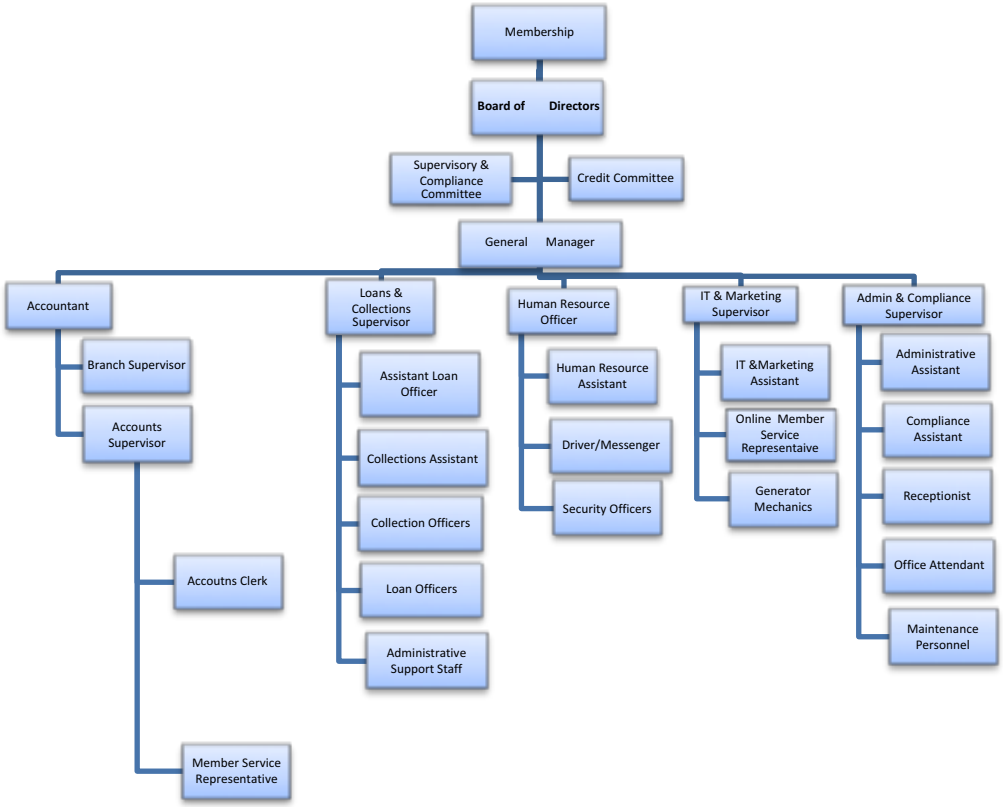


Figure I. Organization Chart of the MCCU: Retrieve from the Human Resource Department of the MCCU

2.1.4. Products and Services offered

Table 1. Products and Services of the Marigot Cooperative Credit Union

Every Day Banking	Investments & Benefits	Credit and Loans	Insurance	Other Services
• Chequing Accounts • Savings Accounts • Overdraft Accounts • Special Savings Accounts • Depositor's Accounts	• Permanent Shares • Fixed Deposits • Accident and death Benefits • Safe Keeping documents	• Agricultural • Mortgages • Vehicles • Medical • Educational & Professional • Debt Mortgages • Pay Day Loan • Business Loan • Ezee Cash	• Family indemnity plan • Life Insure Plan • Loan	• Utility payments • Night Safety Deposit • Letter of Credence • Payroll clearing • Foreign Exchange • Social Security • Benefit payments

With a new and improved branch, there will be renewed confidence amongst the members to continue to conduct business with the MCCU. The institution will gain additional members, thus, increasing the members share capital of the MCCU.

2.1. Project Management concepts

2.1.1. Project Management

According to (*PMBOK® Guide*) Fifth Edition (2013.p1.), a project is a temporary endeavor undertaken to create a unique product, service or result. My final graduation project is to develop a project management plan, as the standard and formal management tool to guide the execution of the renovation of the Calibishie Branch Office Project of the Marigot Cooperative Credit Union.

The FGP is temporary as it has a beginning and an ending. Six months is the estimated period of completion, from February 2018 to July 2018. The end of the FGP will be realized, when it has been reviewed, examined and accepted by the Board of reviewers of the UCI. The general and specific objectives articulated in the project charter achieved at the end of the FGP, signifies that the project ended. The FGP will also end if I have been unable to achieve the general and specific objectives outlined in the project charter.

The FGP will be unique as it will not be a routine operation or activity but will be a defined set of tasks and activities designed to achieve the ultimate goal of a project management plan. The PMI and PMBOK guide (PMI, 2013) and standards will be the main source for the development of the plan, which will be the management tool for the renovation project of the Calibishie Branch Office of the MCCU.

There will be uncertainty as the FGP is been developed, however, these uncertainties will be addressed as the project evolves and details are more readily available and clearer. The FGP will possess the following characteristics:

- It has a purpose to include a beginning and an ending.
- It will use constrained resources.
- It will require planning, execution and control.
- A unique product will be delivered at the end.
- It will be temporary.
- It should return value to all stakeholders.
- The objectives are realistic.

The project management team will be very diverse and may include officers of the various management committees and even the ordinary member.

2.1.2. Project management

Historical facts gathered from Wikipedia informed that creative architects, engineers and masters builders generally managed civil engineering projects in the

1900s. In the 1950s, organizations started to apply project management tools and techniques to projects of engineering and construction origin. It is still safe to say even in today's context construction projects are still been managed by contractors and master builders.

PMBOK® Guide fifth edition (PMI, 2013, P.5-6) discussed project management as the application of knowledge skills, tools and techniques to project activities to meet project requirements. There are 47 groups of project management processes that were further categorized into five process groups, which are:

Initiating
Planning
Executing
Monitoring and controlling
Closing

These five process groups may or not be applicable to the FGP for developing the project management plan. As the plan becomes more elaborate, each progress group will be adjust to suit its development.

According to *PMBOK® Guide* fifth edition (PMI, 2013), management of projects also includes the following:

- Identifying requirements.
- Addressing the various needs, concerns, and expectation of stakeholders.
- Planning and executing the projects.
- Managing stakeholders, meeting project requirements, and creating project deliverables.
- Balancing and competing project constraints to include;
    - Scope
    - Quality
    - Schedule
    - Budget
    - Resources

- Risk

Project Management is a process of using skills and tools in order to complete a project from start to finish. There are important factors that a project manager should understand. These three factors referred to as the triple constrains of project management to include scope, time and cost. As the FGP develops these constraints shall merge. It will be difficult to change one constraint without affecting the other. The cost of developing the FGP will be my sole responsibility and if not managed properly, the other constraints of cost and time will change. Adequate management of the triple constraints is required in order to have a high quality of the deliverable, which stakeholders will accept as satisfactory output.

2.2.3. Project Life Cycle

The project life cycle is a series of phases that the FGP will go through from its initiation to its completion or closure. The project life cycle will occur in phases. *PMBOK® Guide* fifth edition (PMI, 2013, P.38) explained that the phases can be broken down by functional or partial objectives, intermediate results or deliverables, specific milestones within the overall scope of the work. The project life cycle provides the basic framework for managing the project regardless of the specific work involved.

The project life cycle includes the following characteristics:

- Starting the project
- Organizing and preparing
- Carrying the project work
- Closing the project

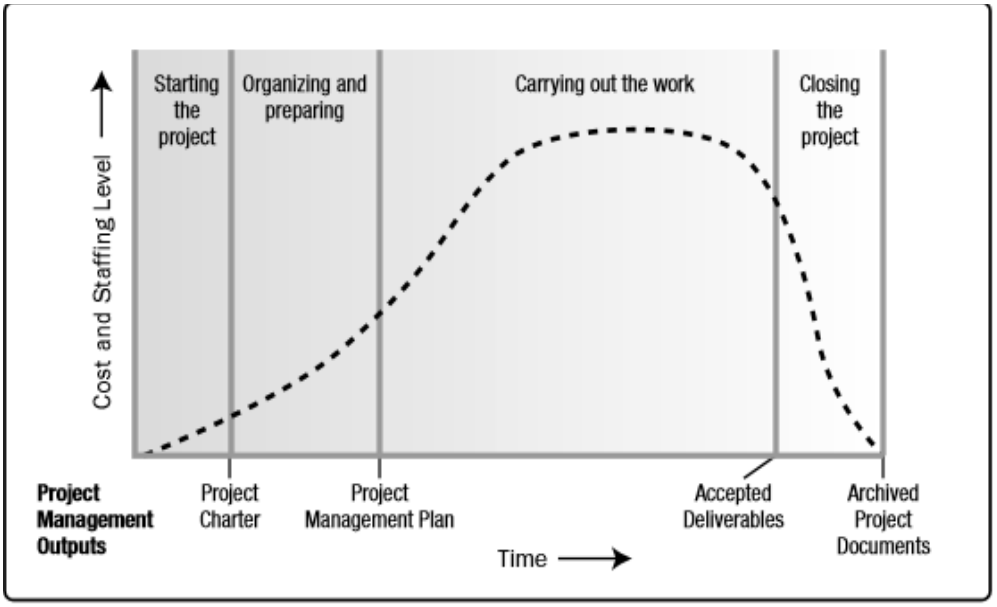


Figure 2 Generic Project Life Cycle Structure. (PMI 2013)

2.2.4. Project management Process

The application of knowledge requires the effective management of the project management processes. *PMBOK® Guide* fifth edition (PMI, 2013, Pg.47-50) describes a process as a set of interrelated actions and activities performed to create a specific product, service or result. Each process is characterized by its inputs, the tools, and techniques that can be applied and the resulting outputs.

The development of the FGP successfully happens when the following are completed:

- Select appropriate processes required to achieve the project objectives.
- Use a defined approach to meet the project requirements.
- Establish and maintain appropriate communication and engagement with key stakeholders.
- Balance the competing constraints of scope, schedule, budget, quality, resources, and roles to produce the specific product or the FGP.
- Comply with the requirements to meet stakeholders' demands.

Project Management comprises of five categories better known as project management processes groups. The groups are as follows:

- Initiating process group- These are the processes performed to define the FGP or a new phase of the FGP by obtaining authorization from the tutor/reviewer to commence the actual FGP.
- Planning process group- These are the processes necessary to establish the scope of the FGP, refine the objectives and define the approach required to attain the objectives of the FGP.
- Executing Process Group- These are Processes responsible for the development of the FGP.
- Monitoring and Controlling- These are processes responsible for ensuring that the FGP is developed according to scope.
- Closing- These are the processes required to finalize all the process groups, ensuring the end of the development of the FGP.

These required processes are guides for applying the appropriate knowledge and skills during the development of the FGP. The application of the project management process is interactive and repeated during the FGP development.

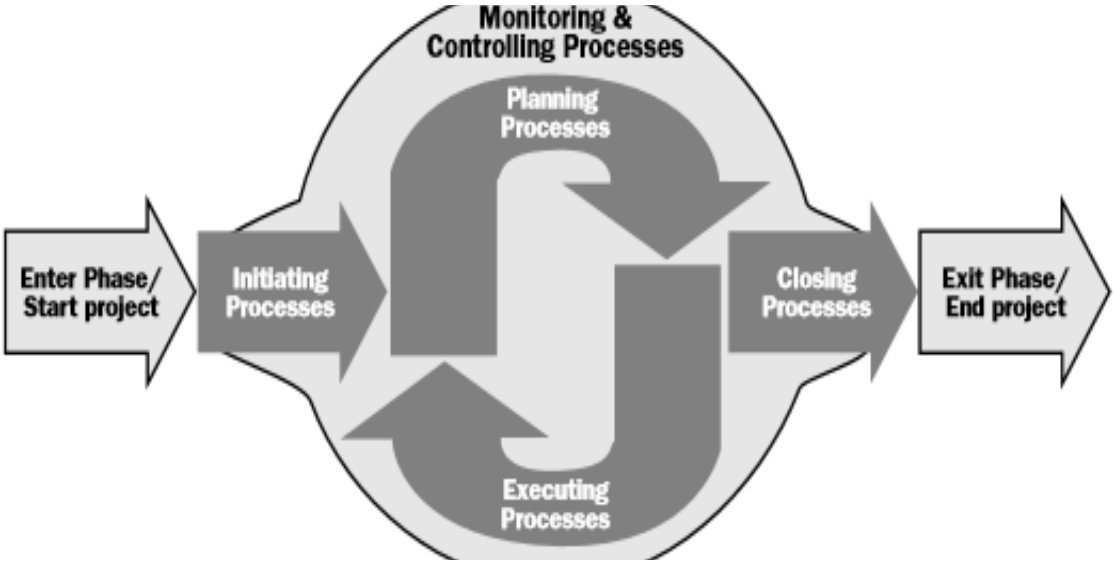


Figure 3. Project Management Process Group. (PMI, 2013)

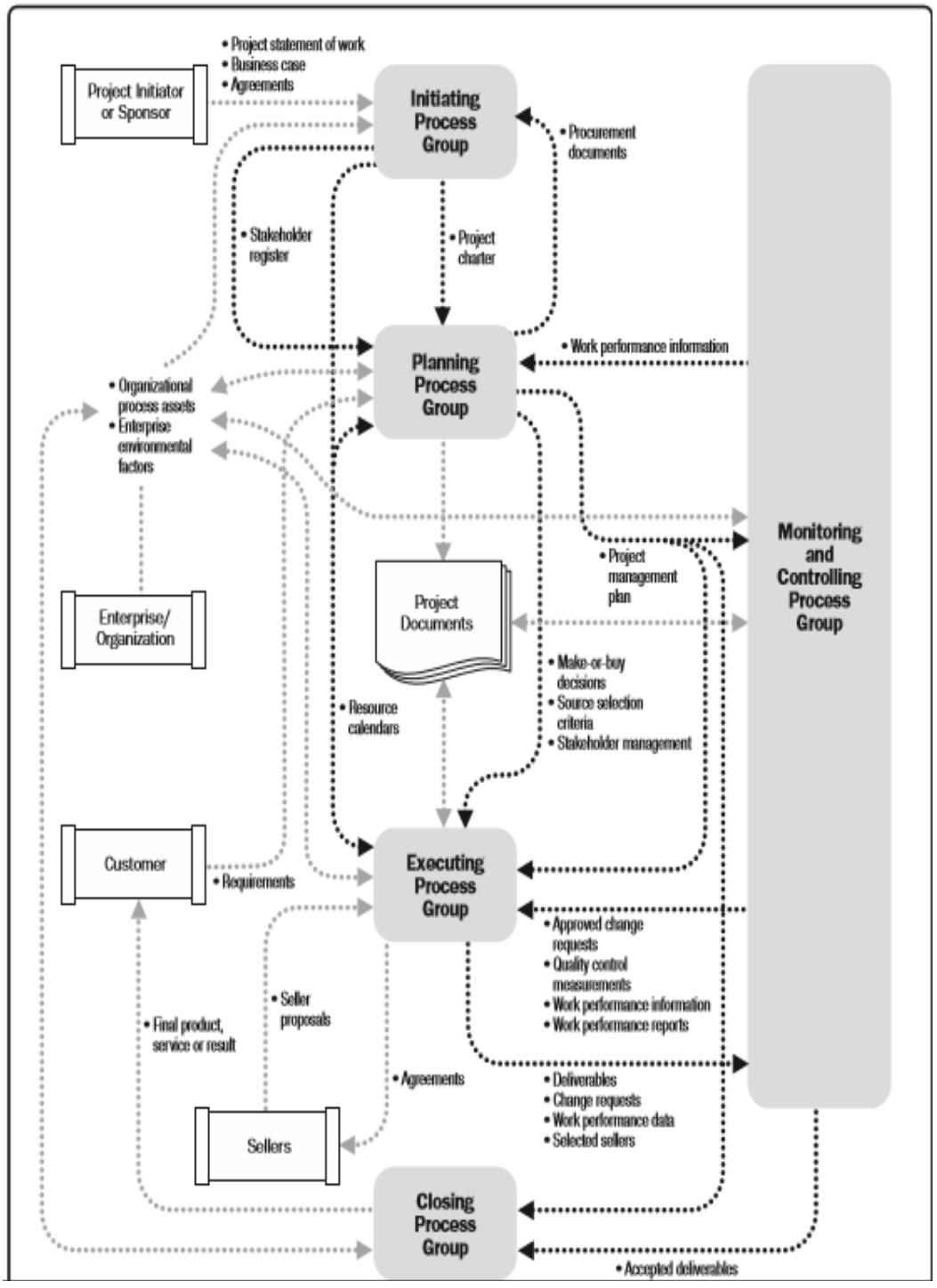


Figure 4. Project Management Process Interactions (PMI, 2013).

2.2.5. Project Management Knowledge areas:

PMBOK® Guide Fifth Edition (PMI, 2013) indicated that there are ten knowledge areas. These knowledge areas cover each of the 47 project management processes.

1 Project Integration Management

This process brings together everything one knows about all the processes so that the project team manages the project in a holistic manner rather than in ad hoc, individual style

2 Project Scope Management

'Scope' is the way to define what the project will deliver. Scope management is all about making sure that everyone is clear about what the project is for and what it includes. It covers collecting requirements and preparing the work breakdown structure.

3 Project Time Management

Time Management relates to how the project manager manages the time the project team spends on project tasks, and the overall duration of the project. Project Cost Management

4 Project Cost Management

Cost management is concerned with the financial resources of the project. The big activity in this knowledge area is preparation of the budget, which includes working out how much each task is going to cost and then determining your project's overall budget forecast. This area also covers the tracking the project's expenditure against that budget and making sure that overspending do not happen.

5 Project Quality Management

Project quality management area is where one learns and set up the quality control and quality management activities on the project so that one can be confident the result will meet the stakeholders' expectations.

6 Project Human Resource Management

Project human resource management relates to how the project team is been managed. It is all about managing the people on the project team, including giving them extra training to perform their jobs, and motivating them to perform their tasks successfully.

7 Project Communications Management

Eighty percent of the project manager's job deals with communication; which involve planning, managing and controlling project incoming and outgoing communications

8 Project Risk Management

The first step in project risk management is planning the risk management work, identifying risks and understanding how to assess risks on the project. There is a lot of detail in this knowledge area. Specifically, around the performance of quantitative and qualitative risk assessments. Risk management is not a one-off activity, though, and this knowledge area covers controlling the project risks going forward through the project life cycle.

9 Project Procurement Management

Procurement management is not required on all projects, but it is common. This knowledge area supports all the procurement and supplier work from planning what one needs to buy, to going through the tendering and purchasing process to managing the work of the supplier and closing the contract when the project is finished.

This has strong links to the work of financial tracking on the project and to performance management. The performance of the contractors has to be managed as the project progresses.

10 Project Stakeholder Management

The final knowledge is a very important area, which takes one through the journey of identifying stakeholders, understanding their role and needs in the project and ensuring that one can meet stakeholders' requirements.

Knowledge Areas	Project Management Process Groups				
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
4. Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope	
6. Project Time Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Resources 6.5 Estimate Activity Durations 6.6 Develop Schedule		6.7 Control Schedule	
7. Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	
8. Project Quality Management		8.1 Plan Quality Management	8.2 Perform Quality Assurance	8.3 Control Quality	
9. Project Human Resource Management		9.1 Plan Human Resource Management	9.2 Acquire Project Team 9.3 Develop Project Team 9.4 Manage Project Team		
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Control Communications	
11. Project Risk Management		11.1 Plan Risk Management		11.6 Control Risks	

Figure 5: Project Management Process Group and Knowledge areas, (PMI, 2013.)

3. METHODOLOGICAL FRAMEWORK

3.1. Information sources

An information sources is a person, thing, or place from which information comes, arises or can be obtained. That source may then inform a person about something or provide knowledge about it. Information sources are divided into separate distinct categories, to include primary, secondary and tertiary. The secondary and primary sources will inform the FGP.

Information can come from anywhere to include personal experience, blogs, websites, books, articles, magazines, bibliographies, encyclopedia, and media and from many other places, person or things. Information are printed, recorded or spoken verbally and are stored using many different storage facilities.

3.1.1. Primary sources

Primary sources are original materials on which other research studies are based. They report a discovery or share new information, first-hand information or first-hand accounts and information relevant to an event. They present information in its original form, not interpreted, condemned, or evaluated by other authors. They are usually evidence or accounts of events, practices, or conditions being researched, and created by a person who directly experienced the event. Primary sources are the first formal appearances of result in print or electronic formats. Examples of primary sources are eyewitness accounts, journalistic reports, financial reports, government documents, and minutes of meetings, interviews and many more.

The following primary sources that will inform the FGP are:

- Minutes of the Board of Directors for the years of 2015-2017
- Annual Reports for the past for years 2013-2016
- Meetings with key stakeholders to include; lead project manager, general manager of MCCU and Board of Directors

- Interviews with members of staff, project team members and other affiliates of the project.

Refer to **Chart 1,** for the primary sources linked to each specific objective.

3.1.2 Secondary sources

Secondary Sources describe, analyze, interpret, evaluates, comment on and discuss the evidence provided by primary sources. A secondary source of information is one that was created by someone who did not have first-hand experience or did not participate in the events or conditions being researched.

Secondary sources are works that are one-step removed from the original event or experience that provide criticism, interpretation or evaluation of the primary source. They are not evidence, but rather commentary and discussion of evidence.

Examples of secondary sources include; biographical works, criticisms, commentaries, histories, dictionaries and others. The secondary sources, which will inform the FGP, are PMBOK® *Guide* fifth edition, (PMI, 2013) PMI database, and other internet databases.

Chart 1 Information sources developed by Thomas Carrie, 2017

Objectives	Information sources	
	Primary	Secondary
1. Develop an integration management guide by June 11th 2018, which will show how the management processes will be integrated throughout the project	Minutes of project meetings, interviews with lead project manager, general manager and Board of Directors	PMBOK® *Guide* fifth edition, PMI database and other internet databases
2. Develop a scope management plan by June 11th 2018, which, outline the details of the work to be done for a successful completion of the project.	Minutes of project meetings, interviews with lead project manager, general manager and Board of Directors	PMBOK® *Guide* fifth edition,(PMI database and other internet databases
3. Develop a schedule management plan by June 11th 2018, that will outline the schedule of activities to be completed within the required time deadlines.	Minutes of project meetings, interviews with lead project manager, general manager and Board of Directors	PMBOK® *Guide*) fifth edition, PMI database and other internet databases
4. Develop a cost management plan by June 11th 2018 that will guide the allocation of financial resources for the work to be done within the approved budget.	Minutes of project meetings, interviews with lead project manager, general manager and Board of Directors	PMBOK® *Guide*) fifth edition, PMI database and other internet databases
5. Develop a quality management plan by June 11th 2018, which outlines the standards by which the work should be done.	Minutes of project meetings, interviews with lead project manager, general manager and Board of Directors	PMBOK® *Guide*) fifth edition, (PMI, 2013)database and other internet databases
6. Develop a human resource management plan by June 11th 2018 that will outline the human resource allocation according to competencies and skills.	Minutes of project meetings, interviews with project manager, general manager, Board	PMBOK® *Guide* fifth edition, (PMI,2013) database and other internet databases
7. Develop a communications management plan by June 11th 2018 that will outline the flow of information between the project team and the various stakeholders.	Minutes of project meetings, interviews with lead project manager, general manager and Board of Directors	PMBOK® *Guide* fifth edition, (PMI, 2013) database and other internet databases
8. Develop a risk management plan by June 11th 2018, which outlines the risks to be addressed throughout the project.	Minutes of project meetings, interviews with lead project manager, general manager and Board of Directors	PMBOK® *Guide*) fifth edition, (PMI, 2013) database and other internet databases. Formal constructing drawings
9. Develop a procurement management plan by June 11th 2018 that will outline how goods and services will be sourced and purchased.	Minutes of project meetings, interviews with lead project manager, general manager	PMBOK® *Guide* fifth edition, (PMI, 2013) database and other internet databases, others documents
10. Develop a stakeholder's management plan by June 11 2018, which outlines stakeholders' interest and their influence in the project.	Minutes of project meetings, interviews with lead project manager, general manager and Board of Directors	PMBOK® *Guide* fifth edition (PMI,2013) database and other internet databases

3.2. Research methods

Research methods refer to all those methods and techniques that are used for conducting of research. Research methods or techniques refer to the methods the researcher use in performing research operations.

The available data and the unknown aspects of the problem have to be related to each other to make a solution possible. Research methods can be put in the following three groups.

- The first group consists of those methods which are concerned with the collection of data already available are not sufficient to arrive at the required solutions.
- The second group consists of those statistical techniques, which are used for establishing relationship between data known and unknown.
- The third group consists of those methods, which dare used to evaluate the accuracy of the research methods.

3.2.1. Analytical method

Analytical method requires the researcher to use facts or information already available and analyze them to make a critical evaluation of materials.

Chart 2 Research methods developed by Thomas Carrie, Writer

Objectives	Indicate research method 1	Indicate research method 2
1. Develop an integration management by June 11th 2018, which will show how the management processes will be integrated throughout the project	Analytical Research method will be the method used to evaluate the facts and information which will be used to achieve objective number one (1)	Expert Judgments: Experts involved with the projects will be interviewed and the information which will further evaluated for development of objective number one (1)
2. Develop a scope management plan by June 11th 2018, which, outline the details of the work to be done for a successful completion of the project.	Analytical Research method will be the method used to evaluate the facts and information which will be used to achieve objective number (2)	Expert Judgments: Experts involved with the projects will be interviewed and the information which will further evaluated for development of objective number (2)
3. Develop a schedule management plan by June 11th 2018, which will outline the schedule of activities to be completed within the required time deadlines.	Analytical Research method will be the method used to evaluate the facts and information which will be used to achieve objective number (3)	Expert Judgments: Experts involved with the projects will be interviewed and the information which will further evaluated for development of objective number (3)
4. Develop a cost management plan by June 11th 2018, which will guide the allocation of financial resources for the work to be done within the approved budget.	Analytical Research method will be the method used to evaluate the facts and information which will be used to achieve objective number (4)	Expert Judgments: Experts involved with the projects will be interviewed and the information which will further evaluated for development of objective number (4)
5. Develop a quality management plan by June 11th 2018, which outline the standards by which the work should be done.	Analytical Research method will be the method used to evaluate the facts and information which will be used to achieve objective number (5)	Expert Judgments: Experts involved with the projects will be interviewed and the information which will further analyzed for development of objective number (5)
6. Develop a human resource management plan by June 11th 2018, which will outline the human resource allocation according to competencies and skills.	Analytical Research method will be the method used to evaluate the facts and information which will be used to achieve objective number (6)	Expert Judgments: Experts involved with the projects will be interviewed and the information which will evaluated for development of objective number (6)
7. Develop a communications management plan by June 11th 2018, which will outline the flow of information between the project team and the various stakeholders.	Analytical Research method will be the method used to evaluate the facts and information which will be used to achieve objective number (7)	Expert Judgments: Experts involved with the projects will be interviewed and the information which will further evaluated for development of objective number (7)
8. Develop a risk management plan by June 11th 2018, which will outline the risks to be addressed throughout the project.	Analytical Research method will be the method used to evaluate the facts and information which will be used to achieve objective number (8)	Expert Judgments: Experts involved with the projects will be interviewed and the information which will further evaluated for development of objective number (8)

Objectives	Indicate research method 1	Indicate research method 2.
9. Develop a procurement management plan by June 11th 2018, which will outline how goods and services will be sourced and purchased.	Analytical Research method will be the method used to evaluate the facts and information which will be used to achieve objective number (9)	Expert Judgments: Experts involved with the projects will be interviewed and the information which will further evaluated for development of objective number (9)
10. Develop a stakeholder's management plan by June 11th 2018, which will outline stakeholders interest and their requirements	Analytical Research method will be the method used to evaluate the facts and information which will be used to achieve objective number (10)	Expert Judgments: Experts involved with the projects will be interviewed and the information which will further evaluated for development of objective number (10)

3.3.1 Tools

Project Management is a very complex set of tasks, for which tools are necessary to manage and ease that complexity. The use of these tools usually makes the project management work easy as well as its standardized the work and the routine of the project manager. (www.umsl.edu)

Chart 3 Tools developed by Thomas Carrie, Writer

Objectives	Tools
1. Develop an integration management guide by June 11th 2018, which will show how the management processes will be integrated throughout the project	Expert Judgment Facilitation Techniques Integration management template
2. Develop a scope management plan by June 11th 2018, which, outline the details of the work to be done for a successful completion of the project.	.Microsoft Projects and design software Meetings interviews Organizational Process Assets inspections Scope Management template
3. Develop a schedule management plan by June 11th 2018 that will outline the schedule of activities to be completed within the required time deadlines.	Expert Judgment Analytical Techniques Meetings Microsoft project and design software Schedule management templates
4. Develop a cost management plan by June 11th 2018 that will guide the allocation of financial resources for the work to be done within the approved budget.	Expert Judgment meetings Analytical techniques cost management template
5. Develop a quality management plan by June 11th 2018, which outline the standards by which the work should be done.	Meetings, cost-benefit analysis cost management template
6. Develop a human resource management plan by June 11th 2018 that will outline the human resource allocation according to competencies and skills.	Expert Judgment, Organizational chart and position description meetings human resource management template
7. Develop a communications management plan by June 11th 2018 that will outline the flow of information between the project team and the various stakeholders.	Meetings, Communication methods, Communication technology
8. Develop a risk management plan by June 11th 2018, which outlines the risks to be addressed throughout the project.	Analytic techniques Expert Judgment Meetings Risk management template
9. Develop a procurement management plan by June 11th 2018 that will outline how goods and services will be sourced and purchased	Expert Judgment Make or buy-analysis market research
10. Develop a stakeholder's management plan by June 11th 2018, which stakeholders interest and their	Stakeholders analysis Expert Judgment Meetings Stakeholders management template

3.4. Assumptions and constraints

Assumptions within a project are anything deemed true but there guarantee. They could be anything relating to knowledge areas and processes of project management.

Constraints are limitations to the projects and they could anything relating to the knowledge areas and processes of project management. However, PMBOK® *Guide* Fifth Edition (PMI, 2013), refers to the triple constraints of scope, time and schedule.

Chart 4 Assumptions and constraints: developed by Thomas Carrie, Writer

Objectives	Assumptions	Constraints
1. Develop an integration management guide by June 11th 2018, which will show how the management processes will be integrated throughout the project	Its assumed that an integration guide will be developed with a project charter as an output	Time maybe limited and information may not be forth coming, as this is new to the MCCU.
2. Develop a scope management plan by June 11th 2018, which outlines the details of the work to be done for a successful completion of the project.	Valid and Reliable Scope Management plan or document will be developed.	Delay of construction documents approval. Time overrun
3. Develop a schedule management plan by June 11th 2018, which outlines the schedule of activities to be completed within the required time deadlines.	A schedule management plan, will be developed to guide the execution of project work.	Times overrun as information are not readily available on activities of work
4. Develop a cost management plan by June 11th 2018, which outlines the allocation of financial resources for the work to be done within the approved budget.	A cost management plan will be developed within budget.	Delay of approval of budget from funding sponsors.
5. Develop a quality management plan by June 11th 2018, which outlines the standards by which the work should be done.	A standardized quality management plan will be developed	Delay in meeting quality standards, by project team
6. Develop a human resource management plan by June 11th 2018, which outlines the human resource allocation according to competencies and skills.	The project lead manager will be readily available to provide information on human resource complement. Human resource management plan will be developed without many setbacks.	Organizational chart and job description maybe not readily available
7. Develop a communications management plan by June 11th 2018, which outlines the flow of information between the project team and the various stakeholders.	A working communications plan will be developed	Lack of standard communication templates
8. Develop a risk management plan by June 11th 2018, which outlines the risks to be addressed throughout the project.	Risks will be identified and project management plan will be develop	Information may not be readily available.

Objectives	Assumptions	Constraints
9. Develop a procurement management plan by June 11th 2018, which outlines how goods and services will be sourced and purchased	That a procurement plan will be developed on the purchase of goods and services	Procurement of goods and services may be handled by a contracted source.
10. Develop a stakeholder's management plan by June 11th 2018, which outlines stakeholders interest and their requirements.	That stakeholders will be identified and engaged for the development of a stakeholders management plan	Some stakeholders may not know about the projects and its developments.

3.5. Deliverables

Deliverable is a project management term for the quantifiable goods and services that will be provided upon the completion of a project. Deliverable can be tangible or intangible parts of development processes, and often specified functions or characteristics of the project.

Chart 5 developed by Thomas Carrie, writer

Objectives	Deliverables
1. Develop an integration management guide by June 11th 2018, which will show how the management processes will be integrated throughout the project	Project Charter- Is used to start the project. Integration management plan showing how the processes will be integrated throughout the project.
2. Develop a scope management plan by June 11th 2018, which outlines the details of the work to be done for a successful completion of the project.	Scope Management Plan
3. Develop a schedule management plan by June 11th 2018, which outlines the schedule of activities to be completed within the required time deadlines.	Schedule Management Plan
4. Develop a cost management plan by June 11th, 2018 to guide the allocation of financial resources to complete the work within the approved budget.	Cost Management Plan
5. Develop a quality management plan by June 11th 2018, which outlines the standards by which the work should be done.	Quality Management Plan
6. Develop a human resource management plan by June 11th 2018, which outlines the human resource allocation according to competencies and skills.	Human Resource Management Plan
7. Develop a communications management plan by June 11th 2018, which outlines the flow of information between the project team and the various stakeholders.	Communications Management Plan
8. Develop a risk management plan by June 11th 2018, which outlines the risks to be addressed throughout the project.	Risk Management Plan .
9. Develop a procurement management plan by June 11th 2018, which outlines how goods and services will be sourced and purchased	Procurement Management Plan
10. Develop a stakeholder's management plan by June 11th 2018, which stakeholders interest and their	Stakeholders' Management Plan

4.0. Results

4.1. Project Management Integration

Project Integration Management has been described as “the process and activities to identify, define, combine and unify and coordinates the various processes and project management activities”, according to Project Management Institute, (2013). This final graduation project (FGP) will show case the integration amongst the project management processes be paramount to the execution and completion of this renovation project for the Calibishie Branch, Marigot Credit Union.

4.1.1. Project Initiation- Development of Project Charter

A project charter will be developed in order to initiate this renovation project. This is necessary as a comprehensive project management plan, may not be readily available as some information is still unknown. According to Project Management Institute, (2013), a project charter falls within the initiation process group, of project integration management. Development of the project charter is “the process of developing a document that formally authorizes the existent 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).

Information and data collected from interviews with key stakeholders such as the General Manager, Mr. Brian Linton and Mr. Tricia Stoute, Accountant will be used to develop the project charter. The Marigot Cooperative Credit Union suffered damage during Hurricane Maria and as a result, information may not be readily available to develop a comprehensive project management plan. Therefore, the project charter will be used to initiate execution of this project. The project charter will be submitted to Board of Directors, the formal approval authority, for review and approval.

Chart 6. Project Charter developed by Thomas. Carrie, Writer

PROJECT CHARTER: CALIBISHIE BRANCH; MARIGOT COOPERATIVE CREDIT UNION:	
Date	**Project Name:**
Issue date: April 21, 2018	Calibishie Branch; Marigot Cooperative Credit Union; renovation project.
Knowledge Areas Processes	**Applicacion Area (Sector / Activity)**
Knowledge areas: Cost, Time, Scope, Human Resources, Procurement, Quality and Stakeholders **Process groups:**Initiation, Planning, Execution, Monitoring & Controlling and Closing	Construction
Start date	**Finish date**
September18th 2018	October 31st 2019
Project Objectives (general and specific)	
General Objective: To enhance the Calibishie Branch Office of the Marigot Cooperative Credit Union geared at increasing products and services. Specific Objectives: 1. Improve customer satisfaction, through additional, improved products and services. 2. Increase share capital through increased membership. 3. Improve the quality of life of members through afforadble products and services. 4. Enhance physical structure of branch. 5. Renovate the structure to be climate resilent. 6. Create employment for local residents.	
Project purpose or justification (expected results)	
The purpose of the project is to renovate the Calibishie Branch; of the Marigot Coperative Credit Union with the aim of improving the products and services offered. With a conducive enviroment to do business, members' confidence will be strengthened, which will result in increased membership as well as members' share capital. It is expected that the results of the project will produce the following: 1. Enhanced physical structure. 2. Satisfied members. 3. Increased membership of the local branch. 4. Increase shared capital.	

5. Affordable services and products.
6. Increase in asset based.
7. Renewed members confidence and interest.
8. Improved economic opportunity for local employees on the project.

Description of Product or Service to be generated by the Project – Project final deliverables

Renovation of the Calibishie Branch Office of the Marigot Cooperative Credit Union to improve product and services, for which members will be greater satisfaction will be greater enhanced and improved.

The project is expected to deliver the following:

1. Approved designed drawings: Architectural and Structural.
2. Bills of quantities and technical specifications.
3. Tendering and Bidding documents.
4. Periodic Reports by; site engineer and Project Manager.
5. Financial statements and budget updates.
6. Insurance documents post and after renovation.
7. Environmental clearance certification.
8. Warranties of equipments and appliances.
9. Certificate of completion.
10. Project Management Plan.
11. Minutes meetings; steering committee/board of director for the estimated period of twelve months.

Assumptions

1. Changes to the approved drawings and technical plans will be made post Hurricane Maria.
2. Tending and Bidding documents will be prepared within the appropriate standards.
3. Bills of quantities will be reviewed post Hurricane Maria.
4. Site location will be reviewed post Hurricane Maria.
5. Tendering process will be transparent to all interested.
6. Local members and residents will support and endorsed the project.
7. Competent members staff will form part of the project team.
8. Standard project management practices will be implemented.
9. Key stakeholders will committ to the project.
10. Skilled local contractors will responded to the call for tenders.
11. A Competent team will review tenders and the most competent contractor will be selected.
12. The project will be completed within budget and period allocated for completion.

13. The renovation will be completed according to revised building and planning codes post Hurricane Maria.
14. Thorough research will be conducted reference climate resilence.

Constraints

1. Inclemant weather conditions; especially during hurricane season.
2. Difficulties in sourcing climate resistent materials.
3. Absence of a project management office to manage the rennovation project.
4. Lack of adequate project management practices.
5. Lack of stakeholders commitment.
6. Insufficent project management expertise at managerial level.
7. Bureaucratic red tape amongst influencial stakeholder; board of directors.

Preliminary Risks

1. Budget overuns as a results of contengencies and increased in material post Hurricane Maria.
2. Lack of Implementation of adequate project management practices.
3. Work already completed could be destroyed or damaged due to adversed weather;hurricanes and storms.
4. Delay in completion of project due to insufficient finance.
5. Stakeholders turn over due to changes at annual general meetings.
6. Delay in project initiation due to post Hurricane Maria building/planning codes adjustments.
7. Shortage of climate resilient materials.
8. Site location maybe compromised as a result of climate change.
9. Increased in price of building materials post Hurricane Maria.
10. Delay in completion of project due to the changes in the weather pattern;hurrican season.

Budget

Information and data to develop the budget breakdown was not fort-coming from the MCCU. However, the General Manager indicated that preliminary estimates for the project was about six hundred thousand dollars ($600,000.00). Post Hurricane Maria this figure is subject to revision, as there will be adjustments to be made to accommodate resilient building materials. The MCCU could not have furnish a budget breakdown, however, as the scope of the project becomes more defined, the budget section of the project charter will be revised. It's the hope that with a more defined scope of work, and a budget breakdown for the renovation project will be developed, outlining specifi budget outcomes.

Milestones and dates		
Milestones	**Start dates**	**End dates**
Advertisement for design Consultant		Completed
Negotiation and award for design		Completed
Bill of quantities and technical specifications		Completed
Physical planning and permit Approval		Completed
Invitation to tender	01/08/2018	25/08/2018
Reviewing and selection of tender	30/08/2018	15/09/2018
Selection and award of contract	18/09/2018	20/09/2018
Renovation works	01/102018	21/08/2019
Final walk through		01/09/2019
Certification of completion		07/09/2019
Opening Ceremony of renovated branch		22/09/2019

Relevant historical information
The Marigot Cooperative Credit Union (MCCU) was established by a Catholic missionary named Sister Alicia. It was established for the less fortunate and marginalized citizens, who could not meet the commercial banks requirments. The main motto of the MCCU is "Not for profit, Not for charity but for Service". The main products offered were loans at low interest rate and savings. To become a member one just has to purchase a share. The MCCU is owned by its members, who elect a Board of Directors, Supervisory and Credit Committees to govern and manage its affairs. Annual General Meetings are held every year, for which the Board reports to the membership. The membership base grew over the years, and it is now at six thousand. The MCCU has established branches in four neighbouring villages of the northeast, making the total number of branches to be four. With over sixty years of experience, the MCCU is postioning itself to become the becon of hope of the northeast, by delivery superior customer service and improving the lives of its members.
Stakeholders
Direct stakeholders: • Board of Directors MCCU • Project Sponsors • General Manager of the MCCU • Senior Managers and other employees • Project Manager • Project Engineer Indirect stakeholders: • Dominica Corporative Societies League • Physical Planning Department • Members of the MCCU • Sterring Committee

Project Manager:	
Authorized by:	**Signature**

Discussions with the General Manager indicated that the position of Project Manager will be held by a consultant, who will be responsible for the overall management of the project. This is a still work in progress and information pertaining to cost and scope is still unknown. The Board of Directors of the MCCU

remains the authorizing body for the project and if necessary, the manager will be giving borrowing authority to transact on behalf of the Credit Union.

4.1.2. Develop Project Management Plan.

Subsequently, the Project Management Plan will be developed following the completion of the Project Charter. According to Project Management, 2013, the project management plan is “the process of defining, preparing, and coordinating all subsidiary plans and integrating them into a comprehensive project management plan”, (Project Management Institute, 2013, p.63).

The Project Management Plan for this renovation project will be developed in phases. Due to constraints following the passages of Hurricane Maria in the year 2017, a numbered of branches suffered damage, including the Calibishie Branch. As a result, the MCCU was compelled to review its strategic plan and make necessary adjustments. As the project becomes more defined, the project management plan will be updated to reflect the additional information and adjustments accordingly.

The project management plan for the Calibishie Branch Renovation will outline how the project will be defined, executed, monitored, controlled and closed. The content of the plan will vary according to the complexity and nature of the renovation work. The plan will be developed through a series of integrated processes, which will be extended throughout the various phases or through closure.

Information to develop the plan will come from the project charter, the general manager, experts and resources to include project manager, engineer, key stakeholders and minutes of the renovation project meetings.

4.2. Project Scope Management Plan

PMI, (2013), Project Scope Management includes all “the processes required to ensure that the project includes all the work required and only the work required to complete the project successfully”, (Project Management Institute, 2013, P.105). The scope management of the Calibishie renovation project will be concerned with defining and controlling what is and will not be included in the project.

PMI, 2013, outlined Project Scope Management to include the following six (6) processes:

- Plan Scope Management.
- Collect Requirements
- Define Scope
- Create WBS
- Validate Scope
- Control Scope

Further elaboration of these processes will be discussed as the project management plan is been developed.

4.2.1. Scope Management Overview

The Scope Management approach will define the scope framework for the Calibishie Branch renovation project. The plan will highlight roles and responsibilities of the stakeholders, the scope definitions, verification, control, the work break down structure. The scope management for the Calibishie renovation project will be the chief responsibility of the project manager.

The scope statement, WBS and WBS Dictionary, will define the scope of the renovation project. Documentations for measuring the project scope, such as quality checklist, performance measurements and responsibility matrix will be created and will be approved by the Project Manager, sponsors and other key stakeholders over the life of the project.

The Project Manager, key stakeholders and other members of the project team will initiate proposed scope changes. All requested changes will be submitted to the project manager, who will further evaluate the request accordingly. Once accepted, the Project Manager will then submit the scope change request to authorizing body and project sponsor for formal acceptance. Upon approval by the authorizing body and project sponsor, the Project Manager will update all the necessary project documents and communicate the scope changes to the relevant stakeholders and project team.

To manage the project's scope successfully, it is important that roles and responsibilities for scope management are clearly defined. The project manager, general manager, sponsor, project team and other key stakeholders will be responsible for managing the scope of this project. In order to ensure effective management of the scope, everyone involved must be aware of his or her roles and responsibilities, that, work completed throughout are within the defined scope.

Chart 7. Roles and Responsibilities of project team developed by Thomas Carrie, Writer

ROLES	RESPONSIBILITIES
Project Sponsor	• Approves project charter • Provides support and resources for the project • Approves or reject scope requests • Evaluates scope change request • Approves final project deliverables • Rejects or accept project deliverables • Provides guidance to the project manager
Project Manager	• Receives guidance from project sponsor • Define scope of project • Measures and verify project scope • Update project documents upon approval of all scope changes, verify scope request • Communicates outcome of scope change request to project team

General Manager	• Facilitate change control meetings
ROLES	**RESPONSIBILITIES**
General Manager	• Communicate decisions of the board to project manager • Provides information about project to members on a regular basis • Communicates project updates to the board of directors • Receives periodic reports from project manager and project engineer for submission to board of directors • Performs duties specific to project on behalf of the approval authorities • Facilitate meetings of the board of directors reference the renovation of the project
Board of Directors	• Provides resources and support to project team • Evaluates the need for scope change request and approves them • Approves project documents • Review periodic reports from project manager and site engineer and accountant • Monitor project's progress according to scope • Provides information to the general membership at annual general meeting • Accept or rejects project's deliverables
Project Team	• Performs project work assigned • Evaluates the need for scope changes and communicate with project manager • Work with project manager to achieve the deliverables according to scope • Participates in brainstorming activities
Stakeholders	• Approve project deliverables

	• Recommend scope changes

4.2.2. Plan Scope Management

Project Management Institute, 2013, described Plan Scope Management as “the process of creating a scope management plan that documents how the project scope will be defined, validated and controlled”, (PMI 2013, P.107). The main benefit of this process will be to provide guidance and direction on how the renovation project will be managed throughout. The main input documents and tools which will be used to develop the scope management plan will be the project charter, environmental factors, organizational processes.

4.2.3. Collect Requirements

Project Management Institute, (2013), defines collect requirements as “the process of determining and managing stakeholders’ needs and requirements to meet project objectives”, (PMI, 2013, P.110). The MCCU has limit experience in the area of project management and does not have a project management office and as a result, senior management of the MCCU will be directly involved in the collect requirement process. Key stakeholders to include the project manager, project sponsors, team members and other key stakeholders will conduct meetings to identify requirements. Requirements will be further refined as they are further elaborated. The Project Charter and the Scope Management will be the main input instruments, which will be used in the collect requirement process. A requirement traceability matrix has been developed and will be subsequently updated or adjusted as requirements are further elaborated.

All project requirements are been completed in accordance with the project charter and the requirement plan. Any approved changes in the project scope of requirements will result in changes to the traceability matrix below. The project team member assigned will make the necessary changes to the matrix and will

communicate the information to all project stakeholders, based on impacts of any approved changes.

Chart 8. Requirement Traceability Matrix developed by Thomas Carrie, writer

Requirement Traceability Matrix			
Req. #	**Project Requirements**	**Project Deliverable**	**WBS Level**
1.0	Implementation of revised building codes post Hurricane Maria	Scope Management Plan	2.0
2.0	Site/Project Engineer must be engaged throughout the life the project	Integration Management Plan	2.0
3.0	Resilient Building Materials must be sourced	Scope Management Plan	2.0
4.0	Lighting of structure should be adequate and energy conserved	Scope Management Plan	2.0
5.0	Resilient Hurricane Shutters should be installed	Scope Management Plan	2.0
6.0	Security fencing and gate should enclose the site after completion	Scope Management Plan	2.0
7.0	Building should be equipped with disability access and exit	Scope Management Plan	2.0
8.0	Stainless steel should be used for appliances and railings to withstand corrosion from elements	Scope Management Plan	2.0

	of the sea		
9.	Only nonskid tiles should be used	Scope Management Plan	2.0
Requirement Traceability Matrix			
Req. #	**Project Requirements**	**Project Deliverable**	
10.0	Walk ways should enclosed the building	Scope Management Plan	2.0

4.2.4. Define Scope

Project Management Institute, 2013, describes the Define Scope Process to be "the development of a detailed description of the project and product", (PMI, 2013, P.120). The main benefit of this process is that the product and services will be described. Requirements identified during the collect requirement process will be further evaluated and only those requirements, which satisfy the stakeholders' needs, will be included.

This process of defining the project scope involved ongoing consultations and meetings with key stakeholders to include the General Manager of the MCCU and the Board of Directors. Information obtained from the collect requirement process was evaluated with the use of expert advice and as a result, the products and services were descriptively documented. The major input instruments used in this process were the project charter, scope management plan and the project charter. The scope of this renovation project will be more defined as the project elaborates.

Major outputs of this process will be the project scope statement and project documents will be updated as information became more refined.

4.2.4a. Project Scope Statement

The project scope statement is a project document, that gives a detailed description of the project scope, major deliverables, assumptions and constraints. The scope statement may highlight works that should be excluded to avoid any unnecessary completion of work outside of project scope.

Chart 9. Project Scope Statement: developed by. Thomas Carrie. Writer

Details of Project Scope Statement
Project Scope Description: Renovation of the Calibishie Branch Office of the Marigot Cooperative Credit Union to improve product and services, for which members satisfaction will be greater enhanced and improved. *Acceptance Criteria:* • Implementation of adjusted building codes post Hurricane Maria 2017. • Site /Project Engineer must be engaged throughout the life of the project. • Resilient Building materials should be sourced. • Lighting of structure should be adequate and energy conserved. • Resilient Hurricane Shutters should be installed. • Security fencing and gate should enclosed the site. • Building should have disability access and exit. • Stainless steel should be used for appliances and any railings to withstand corrosion from the elements of the sea. • Only nonskid tiles should be used. • Walk ways should be enclosed around the building *Project Deliverables:* • Approved designed drawings: Architectural and Structural. • Bills of quantities and technical specifications. • Tendering and Bidding documents. • Periodic Reports; site engineer and project manager. • Financial statements and budget updates. • Insurance documents post and after renovation. • Environmental clearance certification. • Warranties of equipments and appliances.

- Certificate of completion.
- Project Management Plan.
- Minutes meetings; steering committee/board of director for the estimated period of tweleve months.

Project Exclusion

- No installation of ATM Machine
- No parking enclosed in site

Project Assumptions

- Inclemant weather conditions; especially during hurricane season.
- Difficulties in sourcing climate resilient materials.
- Absence of a project management office to manage the rennovation project.
- Lack of adequate project management practices.
- Lack of stakeholders commitment.
- Insufficent project management expertise at managerial level.
- Bureaucratic red tape amongst influencial stakeholder; Board of Directors.

Authorization:

Name…… ……. Date……

4.2.5. Validate Scope

Project Management Institute, 2013 defines this process as “the process of formalizing acceptance of the completed project deliverables”, (PMI, 2013, P.133). The key benefit of this process is that it will bring objectivity to the acceptance process and will increase the chances of the final product, service or result acceptance by validating each deliverable.

For this project process, 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, General Manager and Board of Directors will meet for formal acceptance of the deliverable. During

this meeting, the project manager will present the deliverable to the stakeholders present, for formal acceptance. The Board of Directors 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.

The main input instruments that will be used in the validation process will be the project management plan and requirement documentation. At the end of this process there will be project document updates, accepted deliverables and change request fulfilled.

4.2.6. Scope Control

Project Management Institute, 2013, defines the control scope as the process “of monitoring the status of the project and product scope and managing changes to the baseline”, (PMI, 2013, P.136).
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 the scope control process is being followed. If a change to the project scope is needed, the process for recommending the change to the scope of the project must be followed. Any project team member or sponsor can request changes to the project scope. All change requests should be submitted to the Project Manager in the form of a project change request document. The Project Manager will review the suggested change to the scope of the project and will 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 approval from the Project Manager and Sponsor, the Project Manager will 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.

4.2.7. Create Work Breakdown Structure (WBS)

Project Management Institute, (2013), defines 'create work breakdown' as "the process of sub dividing project deliverables and project work into smaller and more manageable components", (PMI, 2013, P.125). The key benefit of this process is that there will be a visual structure of the work to be done. The WBS is a hierarchical decomposition of the work to be carried out by the project team, to accomplish the project objectives and create the required deliverables.

The planned work for the renovation project will be within the lowest level of WBS components, which will be work packages. A work package will be used to group the activities where work will be scheduled, estimated, monitored and controlled. The main input instruments, which were used to inform the development of the work break structure of the Calibishie Branch renovation project, were environmental factors, organizational process assets, process scope statement and the scope management plan.

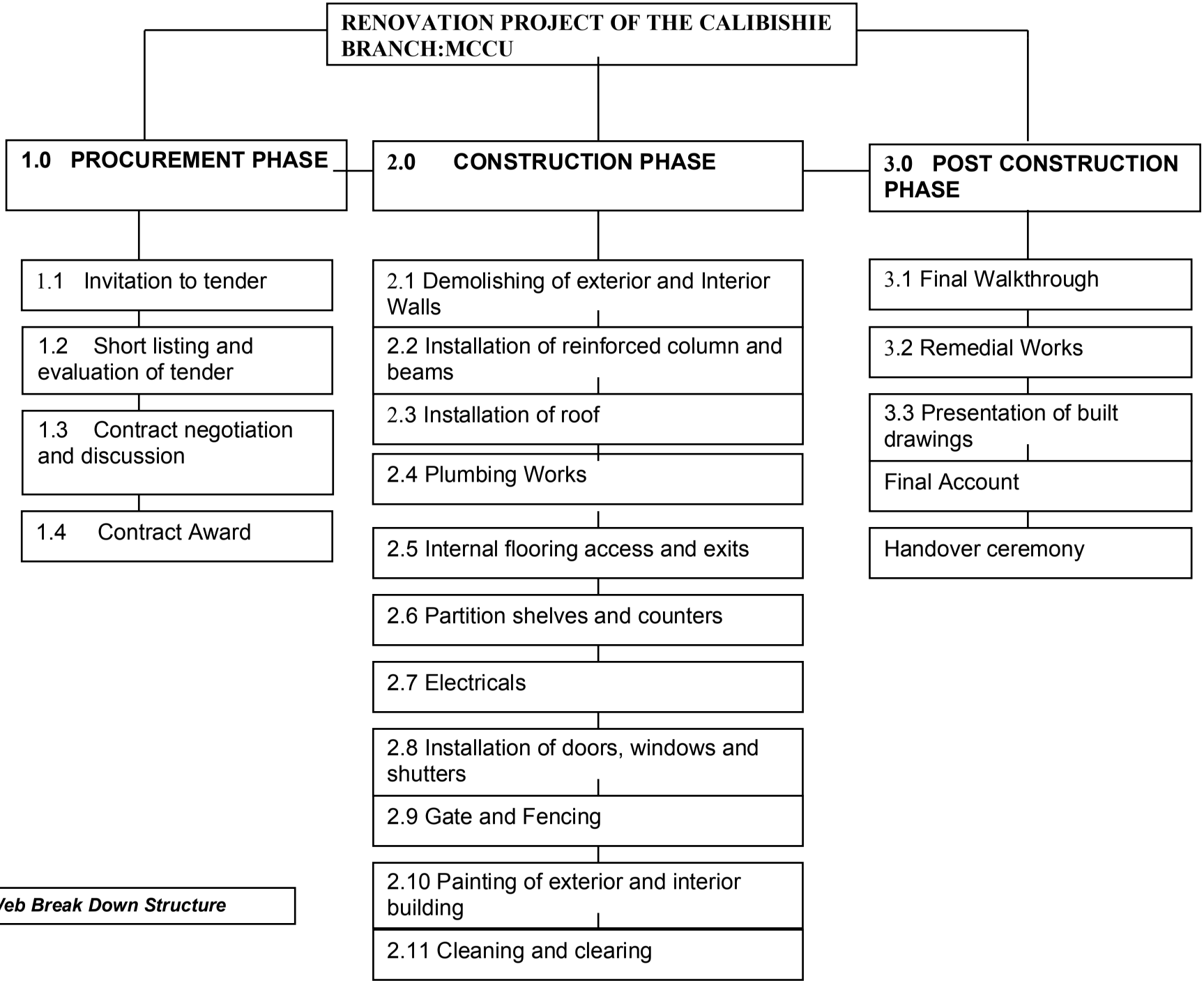


Figure 6. Web Break Down Structure

The WBS Dictionary will be used to clearly define the work necessary for the project completion. 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, and resource needs for that element. The project team will use the WBS Dictionary as a statement of work for each WBS element.

Chart 9. Work Break down Dictionary developed by Thomas Carrie, Writer

WBS Level	WBS Codes	Elements	Description of work	Human Resource	Material/Resources
1.0	**0.0**	**Construction of the Calibishie Branch; MCCU**	**Renovation Project; Calibishie Branch**	**General Manager, Accountant, Contractor, sponsor, project team, and manual labor**	**Heavy Machinery, construction equipment, office supplies and**
2.0	**1.0**	**Procurement Phase**	**Hiring of Construction Services**	**General Manager, Senior Staff,**	**Office machinery and supplies**
2.0	1.1	Invitation to tender	Senior staff and general manager will prepare tender documents and advertise invitation, through various mediums	Senior staff, expert and general manager	Emails, social media, website, office supplies, media

WBS Level	WBS Codes	Elements	Description of work	Human Resource	Material/Resources
2.0	1.2	Shortlisting and evaluation of submission of tenders	Senior Staff, General Manager and key expert will review tender submissions and select the most qualified contraction company/contractor to undertake construction.	Senior staff, general manager and key expert	Emails, office supplies and desk top computers
2.0	1.3	Contract Negotiation and discussions	The most qualified contractor will be engaged for further discussion of tender agreements and conditions. Negotiation on cost maybe necessary	Accountant, senior staff, general manager and Board/project sponsor	Tender documents and forms Office machinery and supplies

BS Level	WBS Codes	Elements	Description of work	Human Resource	Material/Resources
2.0	1.4	Contract Award	Contract documents have been prepared and Contractor has been selected. Documents have been signed by the various parties	Legal office, Sponsors, board of directors, general manager	Office supplies and machinery, printer
1.0	**2.0**	**Construction Phase**	**Execution of the physical works**	**Contractor and staff, Project team and project engineer**	**Construction equipment, other machinery, building materials, technical drawings**
2.0	2.1	Demolishing of external and internal walls	Removal of the damaged walls, and clearing of the site to facilitate building of new walls	Unskilled helpers, Site supervisor, Mason, truck driver	Sledge hammer, wheel barrow, shovel, dumping trucks
2.0	2.2	Installation of reinforcement columns and beams	Steel forms and boxing will be prepared for casting of columns and beams, according to technical drawing specifications	Mason, site supervisor, unskilled helper, carpenter, site engineer	Steel, sand, cement, lumber, nails, binding wire, stones, lumber, ply wood

BS Level	WBS Codes	Elements	Description of work	Human Resource	Material/Resources
2.0	2.4	Installation of roof and electrical	Roof will be prepared and designed by installing: electrical fittings, steel work, lumber and concrete work	Mason, site engineer, site supervisor, carpenter, electrician	Lumber, nails, binding wire, steel, electrical materials, sand, stones, cement, concrete mixers and trucks.
2.0	2.6	Plumbing works	Installation of water closets, face basins, faucets and sprinkler system	Plumber, unskilled helper	Water closets, face basins, sprinkler system
2.0	2.7	Internal floorings, access and exit	Preparation of floor, installing nonskid tiles to floor and steps that will complement the general aesthetics of the building	Tile contractor and helper	Tile cement, tiles, tile cutter
2.0	2.8	Partition, shelves and counter	Timber and finish ply board will be used to construct shelves, partition for work station, and counter	Carpenter, helper and interior designer	Stain, varnish, sander, electric saw, electric drill, finish ply board, lumber and timber, screws, glue

WBS Level	WBS Codes	Elements	Description of work	Human Resource	Material/Resources
2.0	2.9	Electrical	Installation of switches, light fixtures, transformers, meter base, electrical panel, air conditioning	Electrician and helper Air conditioning company	Switches, light fixtures, transformers, meter base, AC units
2.0	2.11	Installation of doors, windows, and shutters	Wooden doors will be installed for the various work stations and metal and glass doors and windows will be	Windows and shutters contractors	Windows, doors, hurricane shutters, ladders
2.0	2.11	Gate and fencing	Installation of stainless steel gate, and fencing, gate will be painted	Gate and fencing contractors	Fencing wire and pole and paint
2.0	2.12	Painting of interior and exterior of the building	Building will be painted in colors that will complement the general aesthetics of the office	Sub- contract painter	Primer, paint, brushes, rollers, paint containers, ladder, Wagner spray mac
2.0	3.13	Cleaning and clearing	Disposal of waste materials around building, Power washing of surface	Helper, cleaning, power washing services, waste	Cleaning disinfectant, mop, mopping container broom, furnishing polish

BS Level	WBS Codes	Elements	Description of work	Human Resource	Material/Resources
1.0	**3.0**	**Post Construction Phase**	**Phase after completion of work**	**Project Team, Stakeholders, general manager**	**Project management plan, office supplies**
2.0	3.1	Final Walkthrough	Contractor will lead a team to include, sponsor, general manager, board of directors, site engineer and project team to inspect the work completed	site supervisor, engineer, contractor, manager board of directors, general manager, project team	Camera, Smart tablet, note book
2.0	3.2	Remedial works	After inspection, any work to be completed to meet scope requirements	Mason, helper, contractor, project team	Construction machinery, equipment, document updates,
2.0	3.3	Presentation of built drawings	As built drawings prepared by contractor and issued to client	Contractor and Architect	Computer and Printer,
2.0	3.4	Final Account	Project is coming to close, documentation of lesson learnt, additions, omission and any savings or table	Project team, senior members of staff, general manager, contractor	Project management plan, Computer Project documents

BS Level	WBS Codes	Elements	Description of work	Human Resource	Material/Resources
2.0	3.5	Handover ceremony	Renovated Calibishie Branch, MCCU will be presented to all stakeholder at cutting of ribbon ceremony	Administrative staff; MCCU, general manager, board of directors, contractor	Reception venue, invitations, refreshments, transportation, ribbons, chairs, PA system

4.3. Project Time Management Plan

According to the Project Management Institute, project time management includes "the processes required for managing the timely completion of the project", (Project Management Institute, 2013, p.141). The project schedule will serve as a roadmap that documents how the project will be executed. The schedules are a critical aspect of the project, as at any given time stakeholders can review the project schedules for information on the project status. The Schedule Management Plan will define the approach the project team will use to create, monitor and manage changes as they relate to the schedule.

Project Management Institute outlines the following processes to include the following:

- Plan Schedule Management- This is the process of establishing the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule.

- Define Activities- This is the process of identifying and documenting the specific actions to be performed to produce the project deliverables.

- Sequencing Activities- This is the process of identifying and documenting relationships among the project activities.

- Estimating Activities Resources- This is the process of estimating the type and quantities of materials, human resources or supplies required to perform each activity.

- Estimate Activity Duration- This is the process of estimating the number of work periods needed to complete individual activities with estimated resources.

- Develop Schedule- This is the process of analyzing activity sequences, duration, resource requirements and schedule constraints to create the projects schedule model.

- Control Schedule-This is the process of monitoring the status of the project activities to update project progress and manage changes to the schedule baseline to achieve the plan.

The schedule management plan model will be developed by the project management team to include the Project Manager, senior members of staff of the MCCU, General Manager, and other key stakeholders. Microsoft Project 2016 will be used to develop the schedule management plan model. The plan will discuss the seven processes outlined by PMI, 2013, to include the following:

1. Plan Schedule Management
2. Define Activities
3. Sequencing Activities
4. Estimating Activities Resources
5. Estimating Activities Duration
6. Develop Activities
7. Control Schedule

The Schedule Management Plan will be better organized as the project becomes more defined and the information becomes readily available. The plan maybe formal or informal highly detailed or broadly framed, according to needs of the renovation project of the Calibishie Branch of the MCCU.

The work break down structure (WBS) would be very instrumental input component that will be used to develop the schedule management plan.

4.3.1. Plan Schedule Management

The first time management process that was explored was 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). The Project Charter was used as an input into the planning process as it defines the summary milestones. In order to plan the schedule management plan, the tools and techniques used, were expert judgment, meetings and analytical techniques.

4.3.2. Schedule Management Planning Approach

A preliminary schedule will be developed and the project team will review it. There must be consistency among the proposed work package assignment, duration, resources and schedule. Stakeholders with approving authorities will review and approve the schedule and it will then be base lined.

4.3.3. Roles and Responsibilities

In order for the project schedule model to be, developed roles and responsibilities must be assigned to key stakeholders.

ROLES	RESPONSIBILITIES
Project Manager	• Work with the project team to create, define work packages, sequencing, estimating duration and resources. • Work with the project team to develop the project schedule model using Microsoft project 2016. • Validate the schedule along with project team, board of directors, and other key stakeholders • Receive schedule approval schedule from the necessary approval authorities and baseline the schedules. • Request for the schedule model to be re-based lined in considerations of any change to the project scope base line. • Facilitate regular update and review meeting

ROLES	**RESPONSIBILITIES**
Project Manager	• Determine impact of schedule variances. • Submit schedule change request to approving authorities. • Report schedule status in accordance with project's communication protocol.
Project Sponsor/Board of Directors of MCCU	• Review and approve project schedule before it is base lined. • Maintain awareness of the project schedule status. • Review and approve changes to project's schedule model before it can be re-base lined.
Project Team	• Work with the Project Manager to define work packages, sequencing, estimate duration and resources. • Evaluate the effects of any scope changes on the current schedule. • Review and validate the proposed schedule before it can be base lined. • Update the schedule base line, when scope changes have been approved. • Participate in regular update and review meetings. • Communicate actual, start, and finish dates to the project manager. • Participate in variance resolution activities.
Stakeholders	• Participate in reviews of proposed schedule model development. • Assist in validating the schedule model.

4.3.4. Schedule Changes and Threshold

If any member of the project team determines that a change to the schedule is necessary, the project to the schedule model is necessary, the Project Manager will meet with the team to discuss, review and evaluate the proposed change. The team and the Project Manager should determine the following:

- The tasks, that will be impacted by the proposed change
- Variance as a result of the potential change
- Variance resolution activities that maybe employ to assess how they would affect scope, schedule and resources

After the evaluation is completed and determinations made, indicating that any changes will exceed the established boundary conditions, then a schedule change request should be submitted to the approval authorities. Submission change request to change to the project sponsor or Board of Directors of the MCCU is required if either of the following conditions listed is true.

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

Any change requests that do not meet these threshold conditions may be submitted to the Project Manager for Approval. Once the change request has been reviewed and approved, the project manager will ensure that the schedule model is adjusted and will communicate the information to the project team, key stakeholders, project sponsor, Board of Directors of the MCCU.

4.3.5. Define Activities

Defining activities is the second process of project time management 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.149). The main benefit of this process is that, the work package provides a basis for estimating, defining, scheduling, executing, monitoring and controlling the project work.

In order to define project activities, the main input components used, were, the project’s Scope Management Plan. The tools and techniques used, were, decomposition and expert judgment.

The activity list as seen in Chart 11 below is a comprehensive list that includes all scheduled activities in sufficient detail to ensure that the project team members understand the required work to be completed. 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).

Chart 10. Updated Project Milestones: developed by Thomas Carrie, Writer

Milestones and dates		
Milestones	**Start dates**	**End dates**
Advertisement for design Consultant		Completed
Negotiation and award for design		Completed
Bill of quantities and technical specifications		Completed
Physical planning and permit Approval		Completed
Invitation to tender	01/08/2018	25/08/2018
Reviewing and selection of tender	30/08/2018	15/09/2018
Selection and award of contract	18/09/2018	20/09/2018
Roof completion	01/102018	21/11/2018
Cleaning and clearing	01/08/2019	10/08/2019
Final walk through		01/09/2019
Certification of completion		07/09/2019
Handing over ceremony of renovated branch		22/09/2019

Chart 11 Activity List and Attributes developed by Thomas Carrie, Writer

WBS ID activity ID	Activity Name	Description of work	Predecessors	Successors	Human Resources
1.0	**Procurement Phase**	**Hiring of Construction Services to facilitate renovation**			**General Manager, Accountant, Contractor, sponsor, project team**
1.1	Invitation to tender	Preparation of tender documents and advertise invitations through various mediums		Short listing and evaluation of submission of tenders	General Manager, Senior Staff,
1.2	Short listing and evaluation of submission of tenders	Reviewing of tender submissions and selection of the most qualified contractor company	Invitation to tender	Contract negotiation and discussions	Senior staff, expert and general manager
1.3	Contract Negotiation and discussion	The most qualified contractor will be engaged for further discussion of tender agreements and conditions. Negotiation on cost maybe necessary	Short listing and evaluation of submission of tenders	Contract award	Accountant, senior staff, general manager and Board/project sponsor

WBS ID activity ID	Activity Name	Description of work	Predecessors	Successors	Human Resources
1.4	Contract Award	Contract documents have been prepared and most qualified Contractor selected. Documents have been signed by the various parties	Contract negotiation and discussion	Demolishing of internal and external walls	Legal office, Sponsors, board of directors, general manager
2.0	**Construction Phase**	**Execution of physical work**			**Contractor and staff, Project team and project engineer**
2.1	Demolishing of external and internal walls	Removal of the damaged walls, and clearing of the site to facilitate building of new walls	Contract Award	Installation of reinforced columns and beams	Unskilled helpers, Site supervisor, Mason, truck driver

WBS ID activity ID	Activity Name	Description of work	Predecessors	Successors	Human Resources
2.2	Installation of reinforced columns and beams	Steel forms and boxing will be prepared for casting of columns and beams, according to technical drawing specifications	Demolishing of external and internal walls	Installation of roof	Mason, site supervisor, unskilled helper, carpenter, site engineer
2.3	Installation of roof	Roof will be prepared and designed by installing: electrical fittings, steel work, lumber and concrete work	Installation of reinforced columns and beams	Plumbing works	Mason, site engineer, site supervisor, carpenter, electrician
2.4	Plumbing works	Installation of water closets, face basins, faucets and sprinkler system	Installation of roof	Internal flooring, access and exits	Plumber, unskilled helper

WBS ID activity ID	Activity Name	Description of work	Predecessors	Successors	Human Resources
2.5	Internal flooring access and exits	Preparation of floor, installing nonskid tiles to floor and steps that will complement the general aesthetics of the building	Plumbing work	Partitions shelves and counters	Tiler contractor and helper
2.6	Partitions, shelves and counters	Timber and finish ply board will be used to construct shelves, partition for work station, and counter	Internal flooring, exits and access	Electricals	Carpenter, helper and interior designer
2.7	Electricals	Installation of switches, light fixtures, transformers, meter base, electrical panel, air conditioning	Partitions, shelves and counter	Installation of doors, windows and shutters	Electrician and helper Air Conditioning Company

WBS ID activity ID	Activity Name	Description of work	Predecessors	Successors	Human Resources
2.8	Installation of doors, windows, and shutters	Wooden doors will be installed for the various work stations and metal and glass doors and windows will be	Electricals	Gate and fencing	Carpenter, Windows and shutters contractors
2.9	Gate and fencing	Installation of stainless steel gate, and fencing, gate will be painted	Installation of doors, windows and shutters	Painting of interior and exterior of building	Gate and fencing contractors
2.10	Painting of interior and exterior of building	Building will be painted in colors that will complement the general aesthetics of the office	Gate and fencing	Cleaning and clearing	Helper, cleaning, power washing services, waste
2.11	Cleaning and clearing	Disposal of waste materials around building, Power washing of surface	Painting of interior and exterior of building	Final walk through	Helper, cleaning, power washing services, waste disposal company

WBS ID activity ID	Activity Name	Description of work	Predecessors	Successors	Human Resources
3.0	**Post Construction phase**	**Phase and construction**			**Project Team, Stakeholders, general manager**
3.1	Final walkthrough	Contractor will lead a team to include, sponsor, general manager, board of directors, site engineer and project team to inspect the work after completion	Cleaning and clearing	Remedial works	site supervisor, engineer, contractor, manager board of directors, general manager, project team
3.2	Remedial works	After inspection, any work to be completed to meet scope requirements	Final walkthrough	Presentation of built drawings	Mason, helper, contractor, project team
3.3	Presentation of built drawings	As built drawings prepare by contractor and presented to client	Remedial works	Final account	Contractor and Architect

WBS ID activity ID	Activity Name	Description of work	Predecessors	Successors	Human Resources
3.4	Final account	Project is coming to close, documentation of lesson learnt, additions, omission and any savings or table	Presentation of as built drawings	Handover ceremony	Project team, senior members of staff, general manager, contractor
3.5	Handover ceremony	Renovated Calibishie Branch, MCCU will be presented to all stakeholder at cutting of ribbon ceremony	Final account		Administrative staff; MCCU, general manager, board of directors, contractor

4.3.6. Sequence Activities

Sequencing activities refer to the process of “identifying and documenting relationships among the project activities.” (Project Management Institute, 2013, p.141). The key benefits of this process are that it defines the logical sequence of work to obtain the greatest efficiency given project constraints. The following input components that can be used to sequence the activities may include, the schedule management plan, milestone list, project scope statement, enterprise environmental asserts. As the project becomes more defined the following outputs maybe developed to include a project network diagram and updates of the milestone lists, activities attributes, activity list and the risk register.

4.3.7. Estimating Activity Resources

Estimating activity resources, 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). The key benefits of this process is that it will identify the type, quantity, and characteristics of resources required to complete the activity which allows more accurate cost and duration estimates. The main inputs used to estimate activity resources were the schedule management plan, activity list, activity attributes, and resource calendar and activity cost estimates. The tools and techniques used were expert judgment and Microsoft Project Management Software in order to produce estimating activities.

This is the process of estimating activity durations, which involve “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. The tools and techniques used were expert judgment and estimating techniques in order to produce the estimated duration of activities seen in chart 10 below.

4.3.9. Develop Schedule

"This is process of analyzing activity 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, 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 used to develop the project schedule seen below.

4.310. Control Schedule

This is "the process of monitoring the status of the project activities to update project Progress and manager changes to the schedule baseline to achieve the plan", (Project Management Institute, 2013, p.190). The key benefits to this process are that it will identify deviation from the plan and take corrective and preventative actions. The Project Manager and the project team should be concerned with the following:

- Determining the status of the project schedule by comparing the total amount of work delivered and accepted against the work completed for any elapsed time cycle.
- Documenting lesson learned for corrective and improvement actions.
- Reprioritizing the remaining work plan (back log)
- Determining the rate at which the deliverables, produced, validated and accepted.
- Determining the project schedule has change.
- Managing the actual changes as the occur

The major inputs that will contribute to the control process will be the project schedule, the project management plan, organizational process assets. Various tools and techniques to include performance review, lead and lags, scheduling tools utilized in the control schedule process

Chart 12 Activity Duration, Human and Materials Resources developed by Thomas Carrie, Writer

WBS ID activity ID	Activity Name	Description of work	Duration	Materials	Human Resources
1.0	Procurement Phase	Hiring of Construction Services to facilitate renovation	25dys	Office Machinery, computers	General Manager, Accountant, Contractor, sponsor, project team
1.1	Invitation to tender	Preparation of tender documents and advertise invitations through various mediums	15days	Emails, social media, websites, office supplies, Facebook	General Manager, Senior Staff,
1.2	Short listing and evaluation of submission of tenders	Reviewing of tender submissions and selection of the most qualified contractor company	5days	Desktop computers, emails and office supplies	Senior staff, expert and general manager
1.3	Contract Negotiation and discussion	The most qualified contractor will be engaged for further discussion of tender agreements and conditions. Negotiation on cost maybe necessary	3days	Tender documents forms, office machinery and supplies	Accountant, senior staff, general manager and Board/project sponsor

WBS ID activity ID	Activity Name	Description of work	Duration	Materials	Human Resources
1.4	Contract Award	Contract documents have been prepared and most qualified Contractor selected. Documents have been signed by the various parties	2dys	Office machinery and printer	Legal office, Sponsors, board of directors, general manager
2.0	**Construction Phase**	**Execution of physical work**	**180dys**	**Construction equipment, other heavy machinery, building materials and technical drawings**	**Contractor and staff, Project team and project engineer**
2.1	Demolishing of external and internal walls	Removal of the damaged walls, and clearing of the site to facilitate building of new walls	10dys	Sledge hammers, wheel barrows, dump trucks, shovels	Unskilled helpers, Site supervisor, Mason, truck driver

WBS ID activity ID	Activity Name	Description of work	Duration	Materials	Human Resources
2.2	Installation of reinforced columns and beams	Steel forms and boxing will be prepared for casting of columns and beams, according to technical drawing specifications	15dys	Steel, sand, stones, cement, lumber, nails, binding wire, plywood	Mason, site supervisor, unskilled helper, carpenter, site engineer
2.3	Installation of roof	Roof will be prepared and designed by installing: electrical fittings, steel work, lumber and concrete work	30dys	Lumber, nails, binding wire, steel, electrical materials, sand, stones, cement, concrete mixers and trucks, vibrator	Mason, site engineer, site supervisor, carpenter, electrician
2.4	Plumbing works	Installation of water closets, face basins, faucets and sprinkler system	15dys	Sprinkler system, water clostes, face basins,	Plumber, unskilled helper

WBS ID activity ID	Activity Name	Description of work	Duration	Materials	Human Resources
2.5	Internal flooring access and exits	Preparation of floor, installing nonskid tiles to floor and steps that will complement the general aesthetics of the building	15dys	Tile cement, tiles, tile cutter, measuring tape, tile cutter	Tiler contractor and helper
2.6	Partitions, shelves and counters	Timber and finish ply board will be used to construct shelves, partition for work station, and counter	20dys	Stain, vanish, sander, electric saw, electric drill, finish ply board, lumber, timber, screws, glue, measuring tape	Carpenter, helper and interior designer
2.7	Electricals	Installation of switches, light fixtures, transformers, meter base, electrical panel, air conditioning	20dys	Switches, light, fixture, transformer, meter base, ac units,	Electrician and helper Air Conditioning Company

WBS ID activity ID	Activity Name	Description of work	Duration	Materials	Human Resources
2.8	Installation of doors, windows, and shutters	Wooden doors will be installed for the various work stations and metal and glass doors and windows will be	10dys	Windows, doors, hurricane shutters, ladders	Carpenter, Windows and shutters contractors
2.9	Gate and fencing	Installation of stainless steel gate, and fencing, gate will be painted	15dys	Fencing wire and poles, digger	Gate and fencing contractors
2.10	Painting of interior and exterior of building	Building will be painted in colors that will complement the general aesthetics of the office	20dys	Primer, paint, brushes, rollers, paints, ladder, paint containers, spray machines	Helper, cleaning, power washing services, waste
2.11	Cleaning and clearing	Disposal of waste materials around building, Power washing of surface	10dys	Disinfectant, mop, power wash machines, containers	Helper, cleaning, power washing services,

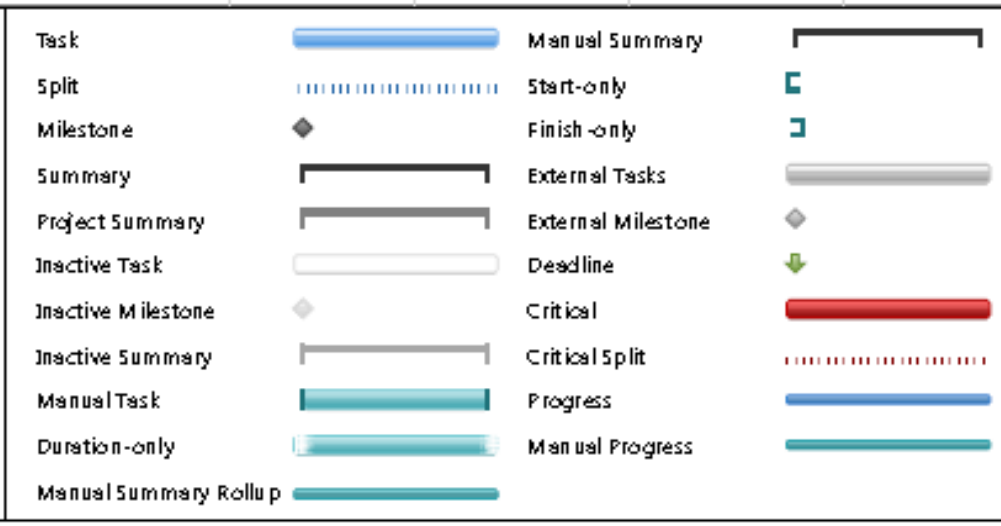
WBS ID activity ID	Activity Name	Description of work	Duration	Materials	Human Resources
3.0	**Post Construction phase**	**Phase and construction**	**40dys**	Project management plan, office supplies, technical drawings	**Project Team, Stakeholders, general manager**
3.1	Final walkthrough	Contractor will lead a team to include, sponsor, general manager, board of directors, site engineer and project team to inspect the work after completion	3dys	Camera, smart tablet, note book	site supervisor, engineer, contractor, manager board of directors, general manager, project team
3.2	Remedial works	After inspection, any work to be completed to meet scope requirements	20dys	Construction machinery, equipment, document updates	Mason, laborer contractor, project team
3.3	Presentation of built drawings	As built drawings prepare by contractor and presented to client	5dys	Computer and printer	Contractor and Architect

WBS ID activity ID	Activity Name	Description of work	Duration	Materials	Human Resources
3.4	Final account	Project is coming to close, documentation of lesson learnt, additions, omission and any savings or table	10dys	Project management plan, project documents updates	Project team, senior members of staff, general manager, contractor
3.5	Handover ceremony	Renovated Calibishie Branch, MCCU will be presented to all stakeholder at cutting of ribbon ceremony	2dys	Refreshments, PA system, ribbons, chairs, invitation, reception venue, transportation	Administrative staff; MCCU, general manager, board of directors, contractor

Renovation Project Calibishie Branch: MCCU

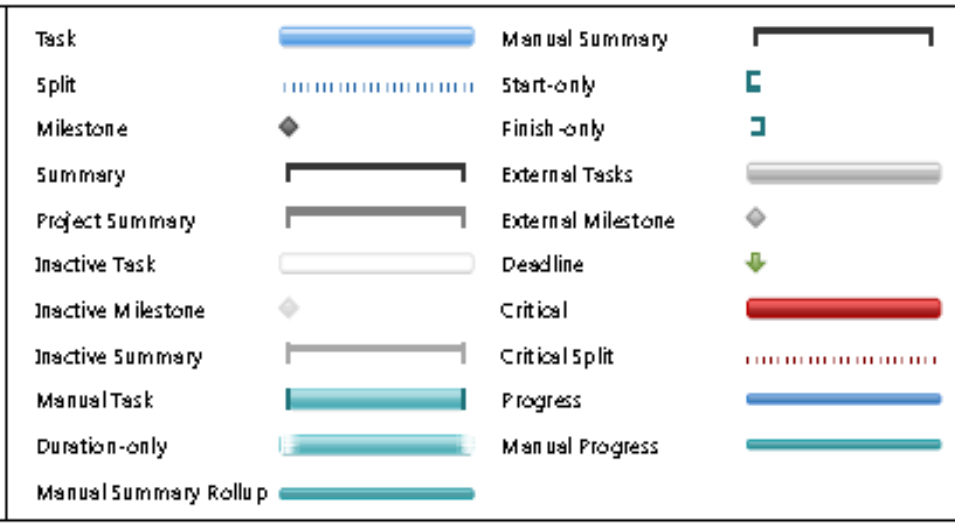
ID	ID	WBS	Task Name	Duration	Start	Finish	Predecessors
1	**1**	**0.0**	**Construction of the Calibishe Branch Renovation Project**	**13.05 mons**	**Wed 8/1/18**	**Wed 7/31/19**	
2	**2**	**1.0**	**Procurement Phase**	**25 days**	**Wed 8/1/18**	**Tue 9/4/18**	
3	3	1.1	invitation to tender	15 days	Tue 5/1/18	Mon 5/21/18	
4	4	1.2	shortlisting and evaluaion of tender submissions	5 days	Tue 5/22/18	Mon 5/28/18	3
5	5	1.3	contract negotiation and discussion	3 days	Tue 5/29/18	Thu 5/31/18	4
6	6	1.4	contract award	2 days	Fri 6/1/18	Mon 6/4/18	5
7	**7**	**2.0**	**Construction Phase**	**180 days**	**Fri 10/12/18**	**Thu 6/20/19**	
8	8	2.1	demolishing of exterior and interior walls	10 days	Tue 6/5/18	Mon 6/18/18	6
9	9	2.2	installation of reinforced columns and beams	15 days	Tue 6/19/18	Mon 7/9/18	8
10	10	2.3	installation of roof	30 days	Wed 10/10/18	Tue 11/20/18	9
11	11	2.4	plumbing works	15 days	Wed 11/21/18	Tue 12/11/18	10
12	12	2.5	internal flooring, access and exits	15 days	Wed 12/12/18	Tue 1/1/19	11
13	13	2.6	partion shelves and couter	20 days	Wed 1/2/19	Tue 1/29/19	12
14	14	2.7	electricals	20 days	Wed 1/30/19	Tue 2/26/19	13
15	15	2.8	installation of doors windows and shutters	10 days	Wed 2/27/19	Tue 3/12/19	14
16	16	2.9	gate and fencing	15 days	Wed 3/13/19	Tue 4/2/19	15
17	17	2.10	painting of exterior and interior of building	20 days	Wed 4/3/19	Tue 4/30/19	16
18	18	2.11	cleaning and clearing	10 days	Wed 5/1/19	Tue 5/14/19	17
19	**19**	**3.0**	**Post construction phase**	**40 days**	**Wed 5/1/19**	**Tue 6/25/19**	
20	20	3.1	final walkthrough	3 days	Wed 5/15/19	Fri 5/17/19	18

Project: Project1fgp2019.mpp
Date: Wed 5/23/18



ID	ID	WBS	Task Name	Duration	Start	Finish	Predecessors
21	21	3.2	remedial work	20 days	Mon 5/20/19	Fri 6/14/19	20
22	22	3.3	presentation of built drawings	5 days	Mon 6/17/19	Fri 6/21/19	21
23	23	3.4	final account	10 days	Mon 6/24/19	Fri 7/5/19	22
24	24	3.5	hand over ceremony	2 days	Mon 7/8/19	Tue 7/9/19	23

Project: Project1fgp2019.mpp
Date: Wed 5/23/18



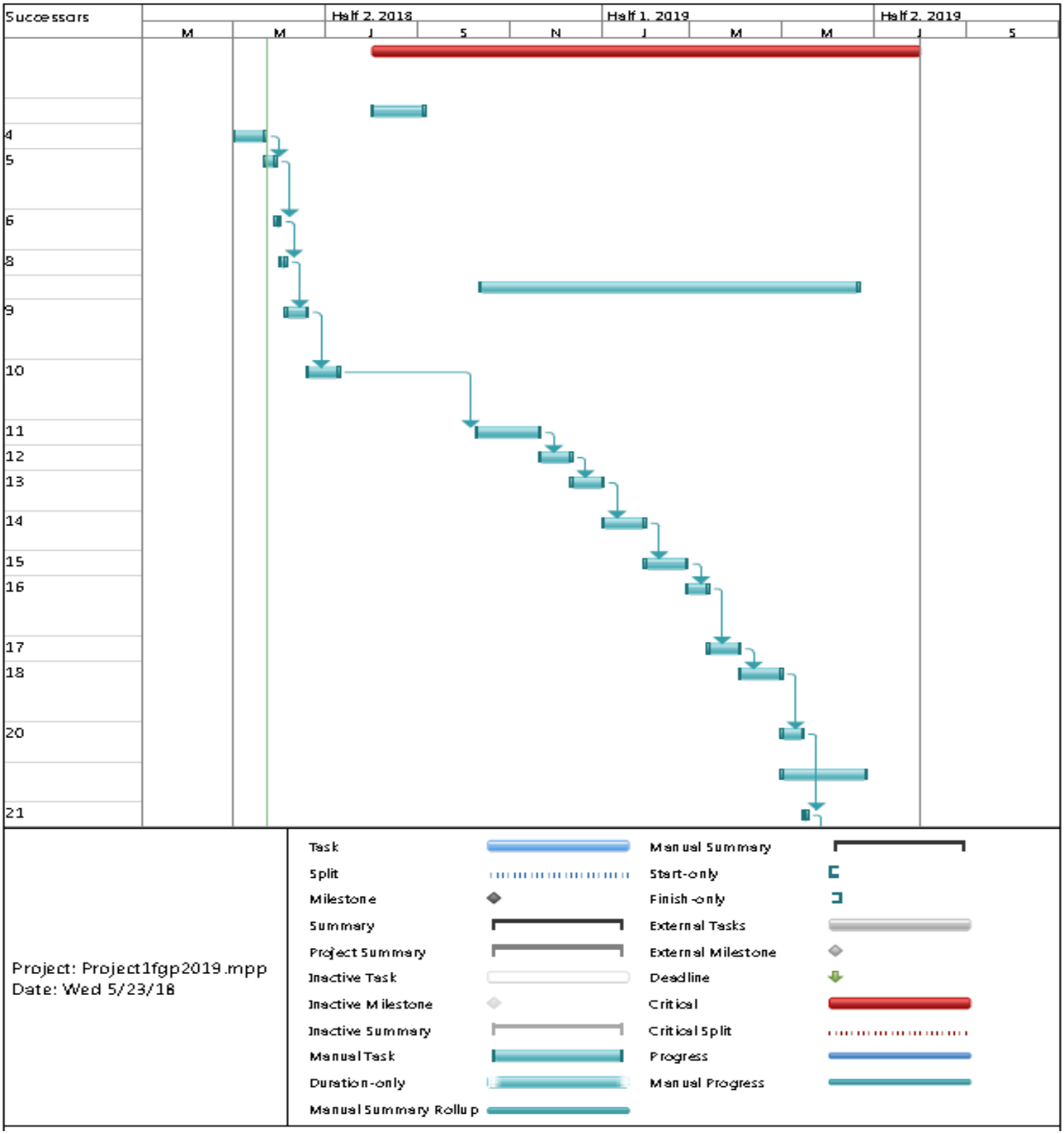


Figure 7 Renovation Project Schedule

4.4. Cost Management Plan

Project cost management includes the processes in “planning, estimating, budgeting, financing, funding, managing and controlling cost so the project can be completed within the approved budget”, (Project Management Institute, 2013, p.195).

The project cost management process includes the following processes:

- Plan Cost Management- This is the process that establishes the policies, procedures and documentation for planning, managing, expending, and controlling project costs.

- Estimate Costs- This is the process of developing an approximation of the monetary resources needed to complete project activities.

- Determine Budget- This is the process of aggregating the estimates cost of individual activities or work packages to establish an authorized cost baseline.

- Control cost- This is the process of monitoring the status of the project to update the project cost baseline.

The project cost management for this renovation project of the Calibishie Branch, MCCU will be primarily concerned with the cost of the resources needed to complete project activities. This process will also consider the effect of project decisions on the recurring cost of using, maintaining, and supporting the product service, or result of the project.

4.4.1. Plan Cost Management Approach

Plan Cost Management is the process that establishes the policies, procedures, and documentation for planning, managing, expending and controlling the project costs. The key benefits of this process are that it provides guidance and directions on how the project costs will be managed throughout the project. The main inputs,

which informed this process, were the project charter, enterprise environmental factors, organizational process assets, expert judgment, analytical techniques, meetings and expert judgment.

Stakeholders' requirements are critical for managing the cost of this project, mainly because different stakeholders will measure project cost in different ways and at different times, therefore, plans to manage cost were made at the early stage of the project.

The Project Manager along with the project team will be responsible for managing and reporting on the project cost throughout the life cycle of the project. During the monthly project status meeting, the Project Manager will meet with key stakeholders to present and review the project cost performance for a specific period. Performance will be measured using earned value. The Project Manager and the project team are responsible for accounting for cost deviations and presenting the Project Sponsor and Board of Directors of the MCCU with options for getting the project back on budget. The Board of Directors will work closely with the project manager, the general manager and the accountant to make changes to the project to bring it back within budget.

4.4.2. Estimate Project Cost

This is the process of "developing an approximation of the monetary resources needed to complete project activities", (Project Management Institute, 2013, p.200). Key benefit of this process is that, it determines the amount of cost required to complete project work.

The inputs used to estimate the project's costs, will be the cost management plan, human resource management plan, project schedule, scope statement/scope baseline and the risk register. Expert judgment, parametric estimating, analogous estimating and bottom up estimating as suggested tools and techniques to produce the activity cost estimates.

The scope of works/activity description as shown in WBS dictionary of each activity examined and the respective labor and material costs will be determined for each activity. In order to determine the labor for each activity, a thorough analysis must be made of the project's schedule activity durations and rates will be determined for each human resource based on industry standards. The material costs for each activity can be determined with the tools and techniques of bottom up estimating, parametric estimating, analogous estimating and expert judgment.

4.4.3. Determine Budget

This is the process "of aggregating the estimated cost of individual activities or work packages to established an authorized cost baseline", (Project Management Institute, 2013, p.208). The key benefit of this process is that it determines the cost baseline against which performance can be monitored and controlled. The main input for this process will be scope baseline, activity cost estimates, project schedule, risk registers, resource calendar, agreements, organizational process assets. The following tools and techniques to include expert judgment, funding limit reconciliation and historical relationship utilized in this process.

Post Hurricane Maria 2017 the MCCU to reassess its overall plans for which the renovation project is a component. The MCCU was required to meet certain obligations related to funding of the project and is still making certain adjustments to its estimation of cost. Therefore, the detailed budget will be developed subsequently, as information is more clearly defined. The necessary documents updated to include the cost and scope management plan.

4.4.4. Control Cost

This is the process "of monitoring the status of the project to update the project cost and managing changes to the cost baseline", (Project Management Institute, 2012, p.215"). The key benefit of this process is that it provides the means of to recognize the variance from the plan in order to take corrective actions and minimize risk. The key to effective cost control is management of the approved cost baseline and changes to that baseline.

The project manager and the project team must adhere to following during the process of control cost:

- Influencing the factors that created changes to the authorized cost baseline.
- Managing the actual changes when and as the occur
- Ensuring that cost expenditures do not exceed the authorized funding by period, by WBS component, by activity and in total for the project.
- monitoring cost performance to isolate and understood variances from the approved cost baseline.
- Monitoring work performance against funds expended.
- Preventing unapproved changes from being included in the reported cost or resource usage.
- Informing appropriate stakeholders of all approved changes and associated cost.
- Bringing expected cost overruns within accepted limits.

Work started on work packages will grant that work package with 50% credit; whereas, the remaining 50% credited upon completion of all work defined in that work package. Costs 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 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 highlighted in 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 and Board of Directors of MCCU, before it can become within the scope of the project.

Measuring Project Costs

Performance of the project measured using Earned Value Management. The following four Earned Value metrics listed below to measure project cost performance:

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

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

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

Reporting Format

Reporting for cost management will be included in the monthly project status report. The Project Manager and the project team will be required to prepare and submit monthly project status report to the relevant stakeholders. The Monthly Project Status Report will include a section labeled. All cost variances outside of the thresholds identified in this Cost Management Plan reported, along with recommended corrective actions and change requests triggered based upon project cost overruns.

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 general manager, Accountant, and Board of Directors with options for corrective actions within five business days. Within three business days from when the authority's body selects a corrective action option, the Project Manager and project team will develop and present the authority's body 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 measured. Upon acceptance of the Cost Variance Corrective Action Plan, it will become a part of the project plan and the necessary project documents updated to reflect the corrective actions.

Cost Change Control Process

This process will follow the established change request process. The Board of Directors of the MCCU must approve approvals for project budget/cost changes.

4.5. Project Quality Management Plan

According to PMI, (2013) project quality management includes "the processes and activities of the performing organization that determines quality policies, objective and responsibilities so the project will satisfy the needs for which it was undertaken", (Project Management Institute, 2013, p.227).

Project Quality Management uses policies and procedures to implement, within the project context, the organization's quality management system and, as appropriate. It supports continuous process improvement activities as undertaken on behalf of the performing organization. Project quality works to ensure that the project

requirements and the product requirements achieved and validated. This quality management plan will discuss the following to include:

- Plan Quality Management
- Perform Quality Assurance
- Control Quality

4.5.1. Plan Quality Management

This is “the process of identifying quality requirement and standards for the project and its deliverables, documenting how the project will demonstrate compliance with relevant quality requirements and standards”, (Project Management Institute, 2013, p.231). The key benefit of this process is that it provides guidance and directions on how quality managed and validated throughout the project. The main inputs that informed this quality management plan were stakeholders register, requirements documentation, enterprise environmental factors, and organizational process assets. The following tools and techniques to include statistical sampling, benchmarking and meetings applied during this process.

4.5.1a. Plan Quality Management Approach

The project quality management will address the management of the project and the deliverables. Quality as a delivered performance or result is “the degree to which a set of inherent characteristic fulfill requirement”, (ISO, 9000) (2010).

The quality management approach for the MCCU renovation 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. The general aim of the quality management approach is to be compatible with international organization for standardization (ISO) quality standards. To achieve (ISO) compatibility the quality management approach of the MCCU renovation project should recognize the importance of:

- Members satisfaction
- Prevention over inspection

- Continuous improvement
- Management responsibility
- Cost of quality

The main contractor and sub-contractors, site engineer and the Planning and Technical Division of the Government of Dominica will define product quality for this renovation project. These definitions will be according to design specifications that refer to industry standards. The focus is on the project's deliverables and the standards and criteria used will ensure the product meets established quality standards and customer satisfaction. The project team, main contractors, sub-contractors and site engineer 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 Project Management Plan.

Metrics will be established and used to measure quality throughout the project life cycle for the product and processes. The contractor, sub-contractors and site engineer will be responsible for working with the project team to define these metrics, conduct measurements, and analyze results. These product and process measurements used as one criterion in determining the success of the project and must be reviewed by the Board of Directors. The project management team should determine the appropriate levels of accuracy and precision for the use in the quality management plan. The established matric will include:

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

Members of the project team will identify quality improvements. Review each recommendation to determine the cost versus benefit of implementing the improvement and the effects of improvement on the product or processes. The project manager and project team will update all project documentation to include the improvement.

4.5.1c. Product Quality

Process quality for the Renovation project of the MCCU project will focus on the construction processes of project deliverables. Establishing process quality standards will ensure that all activities conform to an organizational and international standard that results in the successful delivery of the product.

The Project team, main contractors, sub-contractors and site engineer will determine the product quality standards and requirements. These standards will be based on the international standard (ISO) as defined in the specifications. There may be product specific quality standards identified by the Planning and Technical Division of Dominica, Post Hurricane Maria (20170 that are not currently part of the documented standards. In this case, the project team 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.

4.5.1d. Process Quality

The project team, main contractor, sub-contractors and site engineer will determine the process quality standards and requirements. Many of these standards will be based on existing best practice process standards. The project team, main contractor, sub-contractors and sit engineer will work 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.

4.5.2. Perform Quality Assurance

This is “the process of auditing the quality requirements and the results from quality control measurements and the results to ensure that appropriate quality and operational definitions”, (Project Management Institute, 2013, p.242). The key benefit of this process is that it facilitates the improvement of quality process. The main inputs that informed this process were project documents, quality control measurements and quality audit. Tools and techniques to include quality audit and process tools employed for this process.

Quality Assurance seeks to build confidence that a future output or an unfinished output also known as work in progress would be completed in a manner that meets the specified requirements and expectations. This process will contribute to the state of being certain about quality by preventing defects through the planning processes or b inspecting out defects during the work in progress stage of implementation. The project manager and site engineer will perform assessments at regular intervals throughout the project to ensure all processes are correctly implemented and executed. Chart 12 below provides key quality assurance metrics for the renovation project.

Chart 13 Quality Assurance Metrics: developed by Thomas Carrie, Writer

Process Action	Accepted Process Standard	Process Phase	Assessment Interval
Concrete Slump Test	6 inches maximum	Slump test before placing concrete	Every batch of concrete provided by supplier
Concrete Compressive Strength Test	400psi in 28 days	3 days 7 days 28 days	Take every batch provide by supplier

Reinforced Tensile Strength Test	400MPH	Tensile strength test before placement	Inspect and test every bundle of steel before placement

The project team and sit engineer will conduct process audits on a weekly basis, monitor process performance metrics, and assure all processes comply with project and organizational standards. 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. Document an implement all process efforts and communicate them to all stakeholders. Perform Quality Assurance provides and umbrella for continuous process improvement, which is an iterative means for improving the quality of all processes. Continuous process improvement reduces work and eliminates activities that do not add value.

4.5.3. Control Quality

Control Quality is “the process of monitoring and recording results of executing the quality activities to assess performance and recommend necessary changes”, (Project Management Institute, 2013, p.248). The key benefits of this process are:

- Identify the causes of poor process or product quality and take action to eliminate them.
- Validate that project deliverables and work meet the requirements specified by the key stakeholders necessary for final acceptance.

The main inputs that informed this process were project documents, quality metrics and quality checklist. Inspections and statistical sampling were tools and techniques employed during the process.

The project team and the site engineer will perform all physical measurements and ensure all physical and performance standards 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. The project team will ensure that the product achieves the high level of customer satisfaction anticipated.

Quality Control Measurements

All 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, use other quality control measurements to include Contractor's Quality Control Report Template, Non Conformance Report Template and an Inspection Checklist.

Quality Assurance Log

Trial #	Date	Processed Measure	Actual Measured	Acceptance Yes/No	Recommendation	Date Resolved

Figure 8 Quality Assurance Log

Quality Control Log

Trial #	Date	Processed Measure	Actual Measured	Acceptance Yes/No	Recommendation	Date Resolved

Figure 9. Control Quality Log

4.6. Project Human Resource Management Plan

Project human resource management includes “the processes that organize, manage, and lead the project team”, (Project Management Institute, 2013, p.255). The project team is comprised of the following characteristics:

- People with assigned roles and responsibilities for completing the project tasks
- varied skills sets
- Assigned full or part time positions

Project Management Institute, 2013, discussed the following processes of Project Human Resource Management to include the following:

- Plan Human Resource Management- This is the process of identifying and documenting project roles, responsibilities, required skills, reporting relationships and creating a staff management plan.

- Acquire Project Team- The process of confirming human resource availability and obtaining the team necessary to complete project activities.

- Manage Project Team- The process of tracking team members’ performance, providing feedback, resolving issues and managing changes to optimize project performance.

Team members maybe added or removed from the team as the project progresses. Team members maybe also referred to as project’s staff. Although the project members have specific roles and responsibilities, the involvement of all team members in project planning and decision-making is beneficial.

4.6.1. Plan Human Resource Management

This 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.255). The key benefit of this process is that it establishes project roles and responsibilities, and project organizational chart. The main inputs used to develop this process were organizational process assets, activity resource requirements and the tools and techniques used were networking, expert judgment and meetings.

This project management plan will describe how roles and responsibilities, reporting relationship and staffing management will be addressed and structured within the project.

4.6.2. Roles and Responsibilities

In order to successful complete project tasks, all members of the project team must clearly understand their roles and responsibilities of the project. The following roles and responsibilities are established.

Chart 14 Roles and Responsibilities developed by Thomas Carrie, Writer

Roles	Responsibilities	Competence	Authority
Project Manager	• Work with the project team to create, define work packages, sequencing, estimating duration and resources. • Work with the project team to develop the project schedule model using Microsoft project 2016. • Validate the schedule along with project team, board of directors, and other key stakeholders • Receive schedule approval schedule from the necessary approval authorities and baseline the schedules. • Request for the schedule model to be re-based lined in considerations of any change to the project scope base line. • Facilitate regular update and review meetings • Submit schedule change request to approving authorities	• Supervisory Leadership, sound judgment, effective communication skills, effective decision making, team builder • Knowledge of fundamental project management processes, methodologies and tools & techniques and ability to adapt them to organization	• Apply resources to the project • Make project decisions • Assign task to project staff • Request changes to project baselines • Accept deliverables • Sign approvals

Roles	Responsibilities	Competence	Authority
General Manager (MCCU)	• To facilitate Board of Directors meetings reference project implementation. • To liaise with project manager reference scope change decisions. • To provides project updates to members.	• first degree in management • managerial and project experience	• Sign documents • Apply resources to project
Site Engineer	• To review and approves designs provided by the design consultant. • To monitor the progress of the construction works and report to the project manager	• Civil Engineering Degree • Engineering experience	• Quality acceptance • Approve deliverables
Board of Directors (MCCU)	• Review and approve scope changes. • Review periodic reports or project implementation. • Monitor project progress according to scope. • Provide resources and support for the project.	• Corporate governance knowledge and skills • Knowledge of best practice	• Accept or reject project deliverables • Apply resources to the project

Roles	Responsibilities	Competence	Authority
Accountant (MCCU)	• To prepare financial statements reference project accounting • To manage the accounts of the projects	• Frist degree in Financial Accounting. • Knowledge of International Accounting Standards	• Process payments • Acquire goods and services for project • Review periodic project reports
Procurement Officer	• To undertake procurement activities for the project	• Sound knowledge of national procurement practices	• Process payments • Acquire goods and services for the project

Roles	Responsibilities	Competence	Authority
Project Steering Committee	• To address coordinating issues as they arise during project implementation. • Review periodic project reports.	Not applicable	• Process payments • Acquire goods and services
Contractor	• To undertake construction activities for the renovation project of the Calibishie Branch of the MCCU.	• Experience in construction industry • Successful completion of project of similar nature	• Construct facility according to the acceptable standards
Stakeholders	• To recommend scope changes. • Approves or reject project deliverables. • To monitor the progress of project works.	• Not Applicable	• Accept project deliverables • Make decisions

Project Organizational Charts

The following Responsibility, Accountability, Consulted and Informed (RACI) chart shows the relationship between project tasks and team members.

Chart 15 Responsible, Accountable, Consulted & Informed (RAIC) developed by Thomas Carrie, Writer

Activity	Project Sponsor	Project Manager	Procurement Officer	Project Engineer	Contractor	Project Steering Committee	Stakeholders	Board of Directors
Procurement of Contract	C	A	R	C	I	I	I	I
Construction of Branch	C	A	R	C	C	I	I	I
Contract Administration	C	R	I	I	I	I	I	C
Quality Assurance	I	A	I	R	A	I	C	C
Change Request	C	R	I	C	R	C	C	C
Status Report	I	R	I	I	I	I	I	C
Final Walk Through	I	A	I	I	A	I	I	C
Final Account	I	A	A	I	A	I	I	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

4.6.3. Staffing Management

Staff Acquisition

Staff Acquisition for this renovation project staff will consist of internal resources and external resources. The internal resources will consist of the functional managerial staff and contracted external resources. To successfully undertake this renovation project, internal staff must work closely with the external a project management unit is not available within the MCCU.

Training

Currently, there is no training schedule as the MCCU is prepared to utilize the internal and external resources with required skill sets to undertake the renovation project. Subsequent, if there is a need for training, funding will be provided from financial allocations from any project reserves.

Performance Review

The project manager will review each team member's assigned work activities and communicate all expectations of work to be performed. The project manager will evaluate team members throughout the project and discuss the effectiveness of their performance.

Recognition and Rewards

The project manager will continue to motivate team members throughout the life of the project and will acknowledge the hard work of project staff on the Facebook page of the MCCU and other suggested mediums.

Upon successful completion of the project, team members identified for recognition awards will be presented with a plaque of appreciation at the handover ceremony. The project team and the MCCU will organize a special event of celebration subsequently.

4.7. Project Communication Management Plan

Project Communications Management include “the processes that are required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring and the deposition of project’s information”, (Project Management Institute, 2013, p.288).

PMI discussed the following processes of Project Communications Management to include the following:

1. Plan Communications Management –This is the process of developing an appropriate plan for project communications based on stakeholder’s information needs and requirements and available organizational assets.

2. Manage Communications-This is the process of creating, collecting, distributing, storing, retrieving, and the ultimate disposition of project information in accordance with the communications management plan.

3. Control Communications-This is the process of monitoring and controlling communications throughout the entire life cycle to ensure the information is in accordance with the communications management plan.

4.7.1. Plan Communications Management

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 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 the communications rules and how the meetings will be conducted, ensuring successful meetings. A project team directory is included to provide contact information for stakeholders directly involved in the project.

The Communications Management Plan will ensure effective communication throughout the life of the project. The stakeholder register and organizational process assets were inputs used to develop the communications management plan with the use of the tools and techniques of communication technology, communication methods and meetings with key stakeholders. 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 terminologies.

4.7.3. 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. The Communications Matrix will be used as the guide for the 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.

4.7.4. 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 Board of Directors of MCCU and project sponsor. The project manager is responsible for ensuring that approval is requested and obtained prior to the distribution of any confidential information regarding this project

4.7.5. 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.

4.7.6. Roles

Project Sponsor

The Project Sponsor is the champion of the project and has authorized the project by signing the project charter. This institution 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.

4.7.7. 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 16 Project Team developed by Thomas Carrie, Writer

Role	Name	Organization	Email Addresses	Telephone numbers
Project Sponsor	Cooperate Office	National Bank of Dominica Ltd	To be updated	1-767-235-3000
Project Manager	Still not know		To be updated	To be updated
General Manager	Brian Linton	Marigot Cooperative Credit Union Ltd	blinton.mccu.cwdom.dm	1-767-445-7155
Procurement Officer	Still not know		To be updated	To be updated
Project Accountant	Tricia Stoute	Marigot Cooperative Credit Union Ltd	Tstoute.mccu.cwdom.dm	1-767-445-7155
Project Engineer	Still not known	To be updated	To be updated	To be updated
Project Contractor	Still not known	To be updated	To be updated	To be updated

4.7.8 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.

4.7.9 Communications Matrix

Chart 16 below identifies the communications requirements for the Renovation Project Calibishie Branch; MCCU

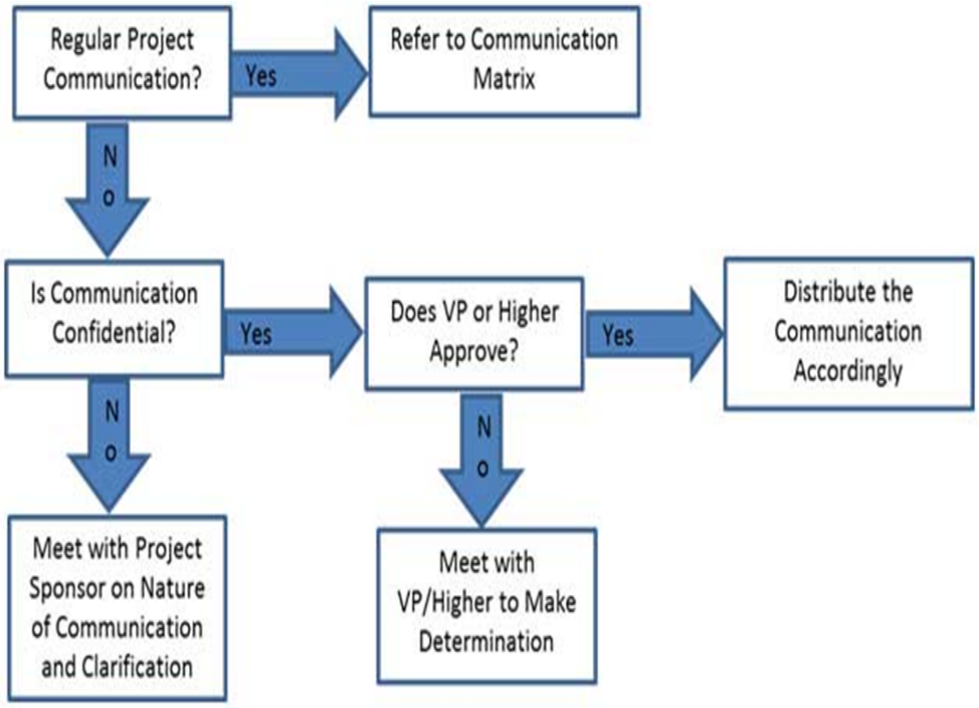
Chart 17 Project Communication Matrix developed by Thomas Carrie, Writer

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable	Format (English)
Kick off Meeting	Introduce Project and team. Review project objectives and management approach	Face to Face	As needed for design consultant and contractor	Project Sponsor and Project Team Members	Project Manager	meeting minutes agenda supporting documents	Microsoft Word, hard and softy copies
Project Team Meetings	Review project status with the team	Face to Face	As needed	Technical staff from design consultant	Technical lead from design consultant	minutes	Microsoft Word hard and soft copy

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable	Format (English)
Monthly Status Project Meetings	Report on status of the project to management	Face to Face Skype/conference call	monthly	Project Team Board of Directors	Project Manager	Presentation slides Minutes Project schedule	Microsoft Word Power Point Soft copy
Project Status Reports	Report the status of the project including activities, progress, cost and challenges	Email	monthly	Project Team Project Sponsor	Project Manger	Project Status Report Project Schedule Emails	Hotmail Outlook 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 within five business days prior to 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 two 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 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 periods.

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 timekeeper is responsible for helping the facilitator to adhere to the time limits set in the meeting agenda. The timekeeper will let the presenter now 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 later 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 project team 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 MCCU 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 MCCU standard slideshow template.

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

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

Project Status Reports – project team will utilize MCCU standard templates for meeting agenda and meeting minutes. Additionally, the standard 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, the project team 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 18 Communication Escalation process developed by Thomas Carrie, Writer

Priority	Definition	Decision Authority	Time Frame for resolution
Priority 1	Major impact to project's operations if not resolved quickly, there will be significant adverse impact to revenue and or schedule	Project Sponsor Board of Directors	6hrs
Priority 2	Medium impact to project's operations which may result in some adverse impact to revenue and/or schedule	Project Sponsors Board of Directors	Within one business days
Priority 3	Slight impact which may cause minor scheduling difficulties with the project but no impact to business operations or revenue	Project Manager	Within two business days
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

4.8. Risk Management Plan

Project Risk Management includes “the process of conducting risk management planning, identification, analysis response planning, and controlling risk on a project”, (Project Management Institute, 2013, p.309). The objective of project risk management is to increase the likelihood and impact of positive events, and decrease the likelihood of negative event in the project.

PMI, 2013 discussed the following processes of Risk Management to include the following:

- Plan Risk Management- The process of defining how to conduct risk management.

- Identifying Risks- The process of determining which may affect the project ad documenting their characteristics.

- Perform Quality Risk Analysis-The process of prioritizing risks for further analysis or action by assessing and combining their probability and impact.

- Plan Risk Responses- This is the process of developing options and actions to enhance opportunities and to reduce threats to project objectives.

- Control Risks- The process of implementing risks response plans, tracking identified risks, monitoring residual risks, identifying new risks, evaluating risks process effectiveness throughout the project.

4.7.1. Plan Risk Management

Plan Risk Management is “the process of defining how to conduct risk management activities for a project”, (Project Management Institute, 2013, p.313). The key benefit of this process is it ensures that the degree, type, and visibility of management commensurate with the risks and the importance of the project to the

organization. The risk management plan is vital to communicate with and obtain agreement from all stakeholders to ensure that the risk management process is supported and performed effectively over the project life cycle. The inputs used to develop the risk management plan were, the stakeholder register, organization process assets, project charter and environmental factors. The tools and technique employed were analytical techniques, meetings and expert judgment.

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 on-going process in which the project team will seek to identify risks in the project, as early as possible, and implement controls to mitigate or avoid 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.

The approach taken to manage risks for this project included a methodical process by which risks were identified, scored and ranked. The project staff assigned will provide status updates on the assigned risks in the weekly project team meetings. Upon the completion of the project, during the closing process, the project manager will analyse 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.

4.7.2. Risk Management Roles and Responsibilities

Chart 19 Risk Management Roles and Responsibilities developed by Thomas Carrie, Writer

Roles	Responsibilities
Project Sponsor	-Approving the Risk Management Plan. -Communicating all high-priority risks, mitigation avoidance strategies to the project manager.
Project Manger	-Generally, responsible for risk management. -Developing and maintaining the Risk Management Plan. -Ensuring the project has adequate resources for implementing the Risk Management Plan. -Implementing of risk mitigation and avoidance strategies for all high-level risks. -Review risks and take action as necessary and communicate all risk-related activities to the project team.
Project Team	-Identifying, risks, maintaining the risk register, assisting the project manager in evaluating risk control activities and their impact on cost, schedule and quality. -Assist the project manager in creating risk assessments, briefings, reports, daily tracking risks and mitigation avoidance strategies.

Roles	Responsibilities
Project Stakeholders	-Identifying risks and providing timely and accurate status of all risks related to their areas of responsibility. -Assist the project manager and team in the development of risk mitigation and avoidance strategies, accordingly.

4.7.2a. 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 on-going 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 Identification 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.

- Analyse 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.

Probability and Impact Matrix is a tool for the project team to aid in prioritizing risks. There may be several risks in any project. Depending on the size and complexity of the project in hand, the risks may vary somewhere from double digits to triple digits. There may not be the time and money to look into all these risks and alone the response action. Therefore, it is necessary to find a way to identify those critical risks which needs the most attention from the project team.

Probability and Impact Matrix uses the combination of probability and impact scores of individual risks and ranks/ prioritizes them for easy handling of the risks. In other words, the probability and impact matrix helps to determine which risks need detailed risk response plans. It is vital to understand the priority for each risk as it allows the project team to appreciate the relative importance of each risk.

Generally, the matrix used is a 3x3 matrix (with Low, Medium, High rating for Probability and Impact) or 5x5 matrix (with Very Low, Low, Medium, High and Very High ratings for probability and impact. If a particular risk has a moderate probability and the estimated impact of this risk is major, then you look into the respective row and column to identify the risk rating. For a moderate probability and major impact, the risk rating in the above matrix is "Medium". The colours are visual indications of the seriousness of the risks.

		Impact				
		Trivial	Minor	Moderate	Major	Extreme
Probability	Rare	Low	Low	Low	Medium	Medium
	Unlikely	Low	Low	Medium	Medium	Medium
	Moderate	Low	Medium	Medium	Medium	High
	Likely	Medium	Medium	Medium	High	High
	Very likely	Medium	Medium	High	High	High

Figure 10 Probability impact- matrix: source www. mindtools.com/page/article/newppm:78.htm

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 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 owner 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.

4.7.3. Identify Risks

Identify 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 this 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 responses seen in Chart 20

4.7.4. Perform Qualitative Risk Analysis

Perform Qualitative Risk 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). The 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.

4.7.5. Plan Risk Responses

Plan Risk Response 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 20.

Chart 20 Risk Register developed by Thomas Carrie, Writer

REF/ID	RISK	RISK PROBABLITY	RISK LEVEL	RISK TRIGGER	PROJECT PHASE OR CATEGORY	RISK RESPONSES AND PREVENTION STRATEGIES	PARTY RESPONSIBLE
1	Shortage of climate resilient materials on island delays renovation works (P	**VERY LIKELY**	**EXTREME**	Shortage of materials on island as well as neighboring islands	**PROCUREMENT**	-Purchase materials ahead of schedule -avoid/mitigate -source & purchase materials from a reliable source at least one month ahead of schedule	Procurement Officer Project Accountant Project Manager
2	Increase in price of materials post Hurricane Maria (2017)	**MODERATE**	**MODERATE**	Increase in price of materials	**FINANCE**	-Fixed price contract -Early awarding of contract -avoid/mitigate -Reviewing costing and negotiate with contract consultant	General Manager of MCCU, Accountant of MCCU and Board of Directors of MCCU
3	Inclement weather delays project activities	**LIKELY**	**MAJOR**	Excessive rain	**PLANNING**	-make adjustment to schedule to facilitate rainy days -Accept -approve contractor's request for additional time to complete work without penalties	Contractor Project Manager

REF/ID	RISK	RISK PROBABLITY	RISK LEVEL	RISK TRIGGER	PROJECT PHASE OR CATEGORY	RISK RESPONSES AND PREVENTION STRATEGIES	PARTY RESPONSIBLE
4	Physical Planning Unit recommended adjustments to physical drawings and resubmission post Hurricane Maria (2017), delays commencement of project activities	**MODERATE**	**MODERATE**	Physical Planning Unit recommended adjustments to physical drawings post Hurricane Maria (2017)	**DESIGN**	-Ensure that architect understands the requirements and adjustments to be made -Accept Risk Make adjustments within a week and re-submit to Physical Planning Unit	General Manager of the MCCU Architect or Design Firm
5	Stakeholders ignore or delay in responding to project communications resulting in deliverables not being approved in time	**LIKELY**	**MAJOR**	Stakeholders fail to attend meetings to approve deliverables	**STAKEHOLDERS**	-Constantly engaged stakeholders -Remind stakeholders of their roles and importance to project success -Mitigate Provide incentives, such as lunch to stakeholders to attend meetings	Project Manager
6	Use of heavy equipment causes excessive noise and dust which leads to unhappy residents	**UNLIKELY**	**RARE**	Residents complain of loud noise and dust	**CONSTRUCTION**	-Give advanced noticed to residents prior to use of heavy equipment -Wet dusty areas regularly	Contractor 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 Response: The action, taken if this risk occurs.

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

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 Plan

PMI, 2013, describes Project Procurement Management as “the process necessary to purchase or acquire products, services or results needed from outside the project team. The organization can be either the buyer or seller of the products, services or results of a project”, (Project Management Institute, 2013.p.383). PMI further describes Project Procurement Management to include:

-Contract Management and change control processes required to develop and administer contracts or purchase orders issued by authorized project team members.

-Controlling any contract issued by outside organization (the buyer) that is acquiring deliverables from the project from the performing organization (the seller), and administering contractual obligations placed on the project team by the contract.

4.9.1. Plan Procurement Management Plan

In order to develop a procurement plan for this renovation project, the Plan Procurement Management process was under taken. PMI (2013), describes Plan Procurement Management to be “the process of documenting project procurement decisions, specifying the approach and identifying potential sellers”, (Project Management Institute, 2013, p.355). The key benefit of this process is that it determines whether to acquire outside support, and it so, what to acquire, how to acquire it, how much is needed, and when to acquire it. The inputs used in this process were the project Scope Statement, WBS and the WBS Dictionary, Risk Register, Organization Process Assets and Enterprise Environmental Factors and Project Schedule. The tools and techniques employed were Make-or Buy Analysis, Expert Judgment, Market Research and Meetings.

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 are procurement risks and procurement risk management considerations; how costs will be determined; how standard procurement documentation will be used; and procurement constraints.

The project manager will provide oversight and management for all procurement activities under this project. The project manager will work with the project team and the contractor to identify all items to be procured for the successful completion of the project. The final procurement list will then be submitted to the procurement officer and the Project Accountant along with the General Manager and the Procurement Officer, will review the procurement items, determine whether it is

advantageous to make or buy it and then begin the vendor selection, purchasing and the contracting process.

4.9.2. Procurement Definitions

The following procurement items and/or services were determined to be essential for project completion and success for the review and approval of procurement officer and accountant and project manager.

Chart 21 Procurement Definitions developed by Thomas Carrie, Writer

Items	Justification	Needed by
Architect	To undertake architectural, structural, electrical, plumbing and air conditioning designs for the facility	completed
Roofing Materials Plywood, lumber, steel, binding wire,	To form roof structural framing and cover for the facility	to be determine by project team, contractor, project manager
Timber partitions, shelves & counters Finish ply, lumber, vanish, screws, counter coverings, other finish materials	To construct partitions, shelves and counters for the internal offices	to be determine by project team, contractor, project manager
Electrical Works Air conditioning units, transformers, lighting fixtures, switches & wires	To generate electricity and air conditioning services.	to be determine by project team, contractor, project manager
Plumbing Works Kitchen sink, face basins, toilets, water closets	To provide water to the facility through the faucets and water closets	to be determine by project team, contractor, project manager

Items	Justification	Needed by
Doors, Windows & Shutters Doors and windows (glass, metal & wooden), hurricane shutters (metal)	To secure building (access and exits and windows)	to be determine by project team, contractor, project manager
Internal Flooring Tiles, tiles cement, grout, tile cutter	To provide nonskid flooring that is safe to walk on	to be determine by project team, contractor, project manager
Kitchen Appliances Microwave, refrigerator, coffee maker, electric kettle	To provide food services for staff	to be determine by project team, contractor, project manager
Office Appliances Office chairs, desks, desk top computers, printers,	To equip the internal office	to be determine by project team, contractor, project manager
Gate & Fencing Steel gate, fencing poles, wires	To secure the premises	to be determine by project team, contractor, project manager

4.9.3 Type of Contracts to be used

All items and services to be procured for this renovation project will be solicited under firm fixed price contracts. The Project Team will work with the Procurement Officer and the Project Accountant to define the item types, quantities, services and required delivery dates. Once the vendor has been selected, the Procurement Officer and Accountant will then solicit bids from various vendors/hardware stores in order to procure the items within the required period, under the firm fixed price contract.

4.9.4. Procurement Risks

All procurement activities carry some potential for risk, which must be managed to ensure project success. Whilst 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.

4.9.5. 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. The project team will include the Project Manager, Procurement Officer and Accountant in all project meetings and status reviews. The Project Manager and General Manager of the MCCU must approve any decisions regarding procurement actions. Any issues concerning procurement actions or any newly identified risks will immediately be communicated to the Project Team, Board of Directors and any other key stakeholder.

4.9.6. Cost Determination

A Request for Proposal (RFP) will be issued in order to solicit proposals from various vendors, which describe how they will be meeting 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 items 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 (WBS) 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.

4.9.7. Standardized Procurement

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

4.9.8. Procurement Constraints

Several constraints must be considered as part of the project's Procurement Management Plan. These constraints will be included in the request for proposal (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 will be disapproved.
4. Resources: All procurement activities must be performed and managed with current personnel; any additional personnel will be hired or re-allocated to support the procurement activities on this project at the request of the Project of Manager and approval by the Board of Directors of the MCCU.
5. Technology: Specifications will be 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.

4.9.9. Control Approval Process

The first step in the contract approval process is to determine what items or services will require procurement from outside vendors. In the event that the island does not manufacture the materials and products required for the facility, estimates will be solicited from hardware vendors. The accountant and procurement officer will send out solicitations to outside vendors, once cost analyses are completed and the list of items and services to be procured externally is finalized. The approval process begins once solicitations are complete and all vendors have received proposals. The first step of this process is to conduct a review of all vendor proposals and determine which meet the criteria established by the project team. All purchases require approval from the project manager.

4.9.10. 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

The Project Manager and the Project Team will measure these criteria and the ultimate decision will be made based on these criteria as well as available resources.

4.9.11. 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, Procurement Officer and Project Engineer, Accountant and General Manager will meet weekly and each vendor to discuss the progress for each procured item. The meetings can be in person or via Skype. 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 Procurement Officer and Project Manager will be responsible for scheduling this meeting on a weekly basis until all items delivered and are determined to be acceptable.

Performance Metrics for Procurement Activities

The accountant and procurement officer may have their own internal metrics for procurement, which they will utilize.

4.10. Project Stakeholders Management Plan

Project Stakeholders Management include "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. It also focuses on continuous communication with stakeholders, to understand their needs and expectations, addressing issues as they occur, managing conflicting interest and fostering appropriate stakeholder engagement in project decisions and activities", (Project Management Institute, 2013, p.391).

Project Stakeholders Management includes the following processes:

-Identify Stakeholders

-Plan Stakeholders Management

-Manage Stakeholders Engagement

- Control Stakeholders Engagement

This Stakeholders Management outlines these processes.

4.10.1. Identify Stakeholders

This is the “process of identifying the people, groups or organizations that could influence or influenced by a decision, activity, or outcome of the project and analyzing and documenting relevant information regarding their interest involvement, interdependencies, influence, and potential impact on project success”, (Project Management Institute, 2013, p.393). In order to identify the stakeholders for this renovation project, the following inputs were used, such as the project charter, enterprise environmental factors, and organizational process assets. The tools and techniques employed were stakeholders’ analysis, expert judgment. The main output of this process is the Stakeholders Register.

Once all relevant stakeholders and their information such as roles interest, requirements and influenced levels are identified, the potential impacts or support that each stakeholder could generate were analyzed and classified.

Chart 22 Stakeholders Register developed by Thomas Carrie, Writer

Stakeholder	Role of Stakeholder	Major Requirements	Influence on Project	External/Internal	Unaware, Neutral, Leading, Supporter, Resistor
Project Sponsor	To provide funding	-The project must be completed within budget and on schedule	High	External	Leading
Project Manger	Management of Project	-The project must be completed within budget and on schedule -Active participation from stakeholders, with clear needs and requirements for the project	High	Internal	Leading

Stakeholder	Role of Stakeholder	Major Requirements	Influence on Project	External/Internal	Unaware, Neutral, Leading, Supporter, Resistor
General Manager: MCCU	Coordinate project activities and ensure a smooth execution	-The Project must be completed within budget and schedule -Active involvement of all stakeholders throughout the life of the project to ensure needs and requirements are fulfill	High	Internal	Leading
Procurement Officer	To undertake procurement activities of the project (source & acquire goods	-All payment vouchers or request for payments are to be submitted with			

Stakeholder	Role of Stakeholder	Major Requirements	Influence on Project	External/Internal	Unaware, Neutral, Leading, Supporter, Resistor
	& services	Supporting documents, signed by project manager and accountant	High	Internal	Leading
Site/Project Engineer	To ensure quality assurance during construction phase and to ensure structural integrity is maintained	-Contractor should adhere to the designs and specifications -All variations should be requested in writing from the contractor and should not proceed until formal approval is	High	Internal	Leading

Stakeholder	Role of Stakeholder	Major Requirements	Influence on Project	External/Internal	Unaware, Neutral, Leading, Supporter, Resistor
Project Accountant	Accounting Services	given -There should be adequate funds for the project in order to process payments within the stipulated contract period -The project must be completed within budget and on schedule	High	Internal	Leading
Physical Planning Unit	To approve requests for infrastructural development and compliance with	-Climate resilient materials should be used -Building should be designed to	High	External	Supportive

Stakeholder	Role of Stakeholder	Major Requirements	Influence on Project	External/Internal	Unaware, Neutral, Leading, Supporter, Resistor
	Building codes post Hurricane Maria (2017)	withstand a category 5 hurricane			
Board of Directors	To approve final deliverables	- Project must be completed within budget and on schedule	High	Internal	Leading
Architect	To undertake designs, provide technical specifications & bill quantities for the renovation work	-Physical Planning Unit to provide timely response & approval	Medium	External	Supportive
Contractor	To undertake renovation work of the Calibishie		Low	Internal	Supportive

Stakeholder	Role of Stakeholder	Major Requirements	Influence on Project	External/Internal	Unaware, Neutral, Leading, Supporter, Resistor
	Credit Union; MCCU	-Access to the site -Detailed working drawings and technical specifications -Payment to be processed within stipulated time frame -goods/services to be acquired within schedule -For all communities issues to be resolved		Internal	Leading

Stakeholder	Role of Stakeholder	Major Requirements	Influence on Project	External/Internal	Unaware, Neutral, Leading, Supporter, Resistor
Community (Members)	To approve scope of work	Participate in community consultations To take ownership of the program To approve conceptual designs To be employed during the construction phase	Medium	External	Supportive

As information becomes available the stakeholders register will be updated to include names, location and contact information.

4.10.2. Power Interest/Classification

A power/interest grid shown in Figure 11 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 strategy can be given to each stakeholder according to the level of engagement needed.

Figure 11 below depicts the power/interest classification of stakeholders based on their respective groups.

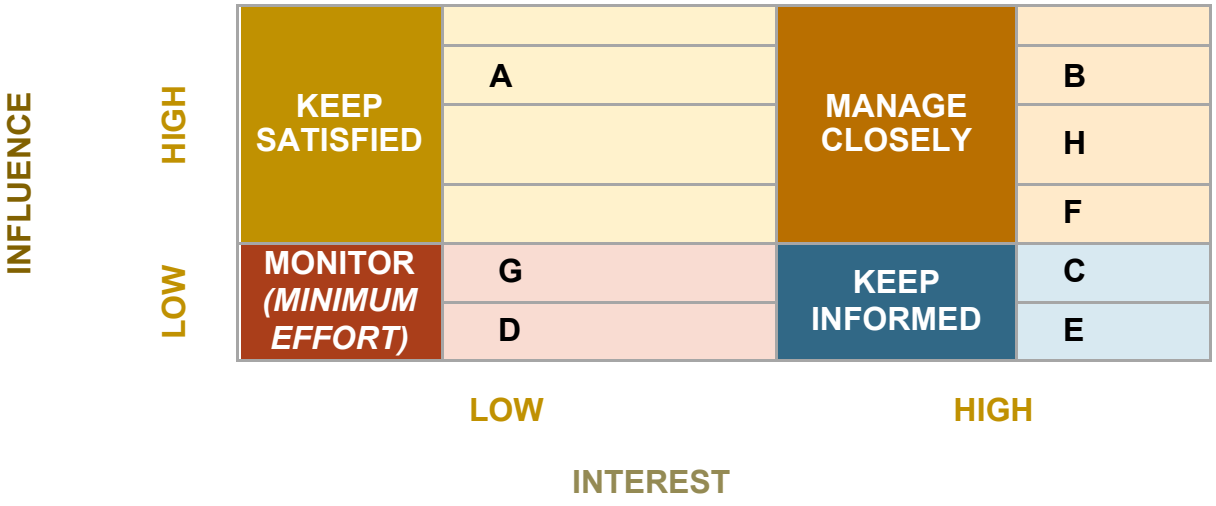


Figure 11 Power/Interest Classification (source:www.smartsheet.com)

Chart 23 Stakeholders Classification and Management Strategy developed by Thomas Carrie, Writer.

Stakeholder	Power: High/Low	Interest: High/Low	Management Strategy: Keep Satisfied Manage Closely Keep Informed Monitor
Project Sponsor	High	High	Manage Closely
Project Manager	High	High	Manage Closely
General Manager: MCCU	High	High	Manage Closely
Procurement Officer	High	High	Manage Closely
Site/Project Engineer	High	Low	Keep Informed
Project Accountant	Low	High	Manage Closely
Physical Planning Unit	High	Low	Keep Satisfied
Board of Directors	High	High	Keep Satisfied
Architect	Low	Low	Managed Closely

Stakeholder	Power: High/Low	Interest: High/Low	Management Strategy: Keep Satisfied Manage Closely Keep Informed Monitor
Contractor	Low	High	Managed Closely
Community (Members)	High	High	Keep Informed

4.10.3. Plan Stakeholders Management

This 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 employed were expert judgments, meetings and analytical techniques. The project manager will be responsible for engaging stakeholders throughout the lifecycle of the project.

The level of engagement required for stakeholders may vary over the course of the Project and 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 is unresponsive

-Leading – aware of project and potential impacts and actively engaged in ensuring the project is a success.

-Supportive-aware of the project and potential impacts and supportive to change

The project manager will analyze current levels of engagement by using the Stakeholders Engagement Assessment Matrix below and reference the communications requirements from the communications management plan, along

with the information for distribution, including language, location, format, content and frequency.

Chart 24 Stakeholders Engagement Assessment Matrix developed by Thomas Carrie, Writer

Stakeholders	Unaware	Resistant	Neutral	Supportive	Leading
Project Manager					Yes
Project Sponsor					Yes
Procurement Officer					Yes
General Manager: MCCU					Yes
Site/Project Engineer					Yes
Project Accountant					Yes
Board of Directors					Yes
Physical Planning Unit					Yes
Architect				Yes	
Contractor				Yes	
Community (Members)				Yes	

10.4. 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 employed are communication methods, interpersonal skills and management skills.

The Project Manager 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 Manager 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.

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 management system, expert judgments and meetings. The output from this process will be work performance information, change requests, project management plan updates and project document updates.

Stakeholders are significant to the project's success, therefore, the project team will engage and listen to all key stakeholders throughout the project lifecycle

5.0 CONCLUSIONS

5.1 To satisfy the general objective of the project, a Project Management Plan was created to guide the initiating and planning process of the Renovation of the Calibishie Branch of the MCCU in accordance to the PMBOK Guide 5th Edition. This plan should be the formal management tool, which should be used to guide the execution of the renovation project. The project manager employed should have the expertise and competencies for successfully management of the renovation project in accordance with project management best practices.

5.2 To satisfy objective one a project charter was created. The key benefit is that, it established a clear project start, project definition and a clear direction for the Board of Directors and Project Sponsor to formally accept and commit to the project. The project charter can be used to initiate the renovation project, in the event that the Project Management Plan is still being developed.

5.3 To satisfy objective two, a Scope Management Plan was developed, outlining, collecting requirements, defining the project scope and creating the work breakdown structure and the WBS dictionary. Information pertaining to the scope are still not defined and the Scope Management Plan will be adjusted as these information becomes known. Changes to the scope of the project should be done in an organized an informed manner, to prevent unnecessary deviations and re-work.

5.4 To satisfy objective three a Schedule Management plan was developed; work packages were defined, and were broken down into project activities, which provided the basis for estimating and scheduling. Dominica is a country, which experience heavy rainfall in the months of June and September; therefore, the

Project Manager must carefully consider these risks and make the adequate adjustments to the project schedule to facilitate any interruptions. There should be on-going dialogue with the contractor concerning project schedule, in order to deliver the project within the budget, schedule.

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. Information on cost of the project was not available to complete a detail budget; however, as these information becomes available a detail budget must be developed, to allocate cost to WBS packages.

5.6 To satisfy objective number five a Project Quality Plan was developed, which, provided guidance on how the project quality would be managed and validated throughout the project. It is imperative that a Project Engineer is engaged throughout the life of the project to ensure quality assurance. Post Hurricane Maria, the Dominica Building Codes were adjusted, and it is imperative that these codes are maintained.

5.7 To satisfy specific objective number six a Human Resource Management Plan was developed. The roles and responsibilities, along with the competencies and authority of staff, were identified and the project's organizational chart was completed, along with the staffing management approach, which detailed staff acquisition. As the MCCU has little formal experience in standardized project management, there could easily be cross cutting of roles within the project team. In the event that a project manager is not engaged, the functional departments of the MCCU must refer to the project management best practices outlined in the plan to manage this project to a successful end.

5.8 To satisfy objective seven, a Communications Management Plan was developed and the communications matrix detailed the communication type, frequency, objective, audience and deliverables, which would ensure effective and

efficient communication to all stakeholders. The appropriate medium of communications should be utilized to facilitate effective and efficient communication. The Project Manager along with the Project Team must refer to the Communications Policy of the MCCU to guide the communications activities of the project, ensuring that all stakeholders are actively engaged throughout the life of the project.

5.9 To satisfy objective eight, a Risk Management Plan was created. The plan outlined the roles and responsibilities of each team member and stakeholder within the context of risk, risk management approach and knowledge of conducting risk assessments. The Project Team has to be fully committed to this project, as effective management of the risks identified can only be achieved if the project team is committed to the project. Risks, if not properly managed could lead to failure of a project.

5.10. To satisfy objective nine a Procurement Plan was created. The Procurement Management Plan defined the types of contracts to be used, the risks involved, the risk management, constraints, and vendor management and performance metrics. The MCCU does not have any Procurement Policy and there is no procurement template on file, therefore, the procurement activities of this project should be done in systematic and controlled manner, in order to avoid budget overruns.

5.11 To satisfy objective ten, a Stakeholders Management Plan was created. Individuals, groups and organizations that would be impacted by the project were identified, along with the management strategies to effective engage stakeholders throughout the life of the project. Stakeholders identified should remain committed to this renovation project, in order to maintain effective management. Bureaucratic red tapes amongst stakeholders can contribute negatively to execution of the project and all stakeholders should be mindful of that.

6.0 Recommendations

1. The MCCU will use this Project Management Plan as the formal management tool to execute this renovation project of the Calibishie Branch. The guidelines outlined in the plan should be maintained and the MCCU will embrace the opportunity to execute this project within the best practices of this formal project management plan and gain experience in the process.

2. The MCCU will use this Project Management Plan as a template for developing future management plans for project of similar nature. This main template will guide the development of templates for the individual knowledge areas, and further strengthen the project management capabilities of the MCCU.

3. The MCCU will cater training of key staff in the area of professional project management practices for future implementation of projects of similar nature. With formal knowledge and competencies of project management staffs within the functional departments would be better able to write project management plan and execute projects within best practices of project management outlined by PMBOK Guide Fifth Edition.

4. The MCCU develops a database of best practices and lessons learned with this renovation project as reference for future projects of similar nature. This will contribute to prevention of completing projects that do not fit the business needs of the MCCU.

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8.0 APPENDICES

Appendix 1: FGP Charter

PROJECT CHARTER

Date	**Project Name:**
Issue date: August 15th 2017	Project Management Plan for the revovation of the Calibishie Branch; Marigot Cooperative Credit Union
Knowledge Areas / Processes	**Applicacion Area (Sector / Activity)**
Should indicate the knowledge areas and process groups which are related to the project **Knowledge areas:** Cost, Time, Scope, Human Resources, Procurement, Quality and Stakeholders **Process groups:**Initiation, Planning, Execution, Monitoring & Controlling and Closing	Construction
Start date	**Finish date**
August 17th 2017	February 17th, 2018

Project Objectives (general and specific)

General Objective:

To develop a project Management plan which will be used as the guide to execute the revovation of the Calibishie Branch project of the MCCU.

Specific Objectives:

- Develop a scope management plan,which will outline the details of the work to be done.
- Develop a time management plan, which will outline the schedule of activited to be completed and deadlines,
- To develop a cost management plan, which will guide the allocation of financial resources for the work to be done within the approved budget.
- To develop a quality mangement plan which will outline the nature of the work to be done.
- To develop a human resource management plan which will outline the human resource allocation.
- To develop a communications management plan, which outlien the flow of information.
- To devlop a risk management plan which will outline the risks to be addressed.
- To develop a procurement management plan, which outline how goods and services will be purchased.
- To develop a stakeholders management plan, which outline the stakeholders and their influence.

Project purpose or justification (merit and expected results)

The purpose of the project is to develop a project management plan for the renovation of the Calibishie Branch of the Marigot Credit Union. The Credit Union does not have a Project Management Office and as a result there is significant contraints on the credit union to adequately write projects or execute projects in accordance with its strategic objectives. Projects were mainly implemented in an adhoc manner, through the various functional departments which did not have the adequate resources,especially in the human resource department.

The Board deemed that a project of this magnitude couldnot be implemented in an adhoc manner. Lessons learned from past projects, that more emphasis was placed mainly on budgeting and a deadline of handing over, and the other knowledge areas were not of much concern. The greater issues had to do with budgeting, scope and time. Less importance was placed on monitoring and controlling, Quality, procurement, human resources and stakeholders management. Therefore, projects were not successfully implemented and would often run over time and budget.

There is need to develop a proper management plan, which will guide the implementation and execution of this renovation to ensure that the deliverables prepared within an appropriate standard. One of the greatest benefits of this management plan, is that it will be used to develop procedures and policies to manage the knowledge areas which, for which the specific objectives and results will be linked. Another significant benefit of the project management plan is that it will be the tool for which the project will be bench marked and lesson learnt will be document for future implementation and execution of projects of this nature.

Its expected that the results of the project management plan will produce the following plan to include;

9. Project integragtion management guide
10. Scope management plan
11. Time management plan
12. Cost management plan
13. Quality management plan
14. Human resoure management plan
15. Communications management plan
16. Risk management plan
17. Procurement management plan
18. Stakeholders management plan

The Marigot Cooperative Credit Union (MCCU) which have been in existent for 61 years is a membership based organization which provide finanicial services, mainly to include savings, loans, insurance and many others. The main motto of the MCCU is not for profit, not for charity but for service. There are four branches located at various communities in the North East of the Island of Dominica, West Indies. The Board of Directors wants to grow the membership base and to improve share capital of the Calibishie branch.

One of the means of achieving these objectives is to ensure that the branch office is conducive to serve members. As a result, it was deemed that the branch office in its present state is not conducive and as a result a decision was taken to renovate the building. It is the hope that after the renovation there will be a renewed confidence of members and members staff will be much more comfortable in a working

environment which will facilitate improved performance

Description of Product or Service to be generated by the Project – Project final deliverables

The project is expected to deliver the following to include:

- Project Charter
- Scope Management Plan
- Time Management Plan
- Cost Management Plan
- Quality Management Plan
- Human Resource Management
- Procurement Management Plan
- Stakeholders Management
- Risk Management

Assumptions

- That the tutors assigned to this course will provide adequate guidance to facilitate the development of the Project Management Plan which is will be undetaken as the FGP.
- The FGP will be develop within a three months time frame
- The main stakeholders involved will provide information, which will informed the development of the FGP
- That the FGP will be completed within the required standards outlined by UCI.

Constraints

- Limited human resources to develop the FGP as its is very extensive assignment.
- The time estimated for completion of weekly deliverables may be insufficient.
- Unavaliablity of project management plan of template for a project of similar nature.
- Personal time to commit to the development of this FGP

Preliminary risks

- That the MCCU could put the renovation on hold and then information would not be readily available to develop the project management plan for the renovation project.
- Project topics could be changed if tutor is not satified with what is proposed.

Budget

General cost estimate of main items/deliverables for project budget.

The budget is still be explored and will be developed as the details for the project become more readily available.

Milestones and dates

Milestone	Start date	End date
Reviewing an Selecting Topic for the FGP	June 26th 2017	June 28th 2017
Preparation of Project Charter	June 29th 2017	July 02nd 2017

Relevant historical information

Stakeholders

Direct stakeholders:

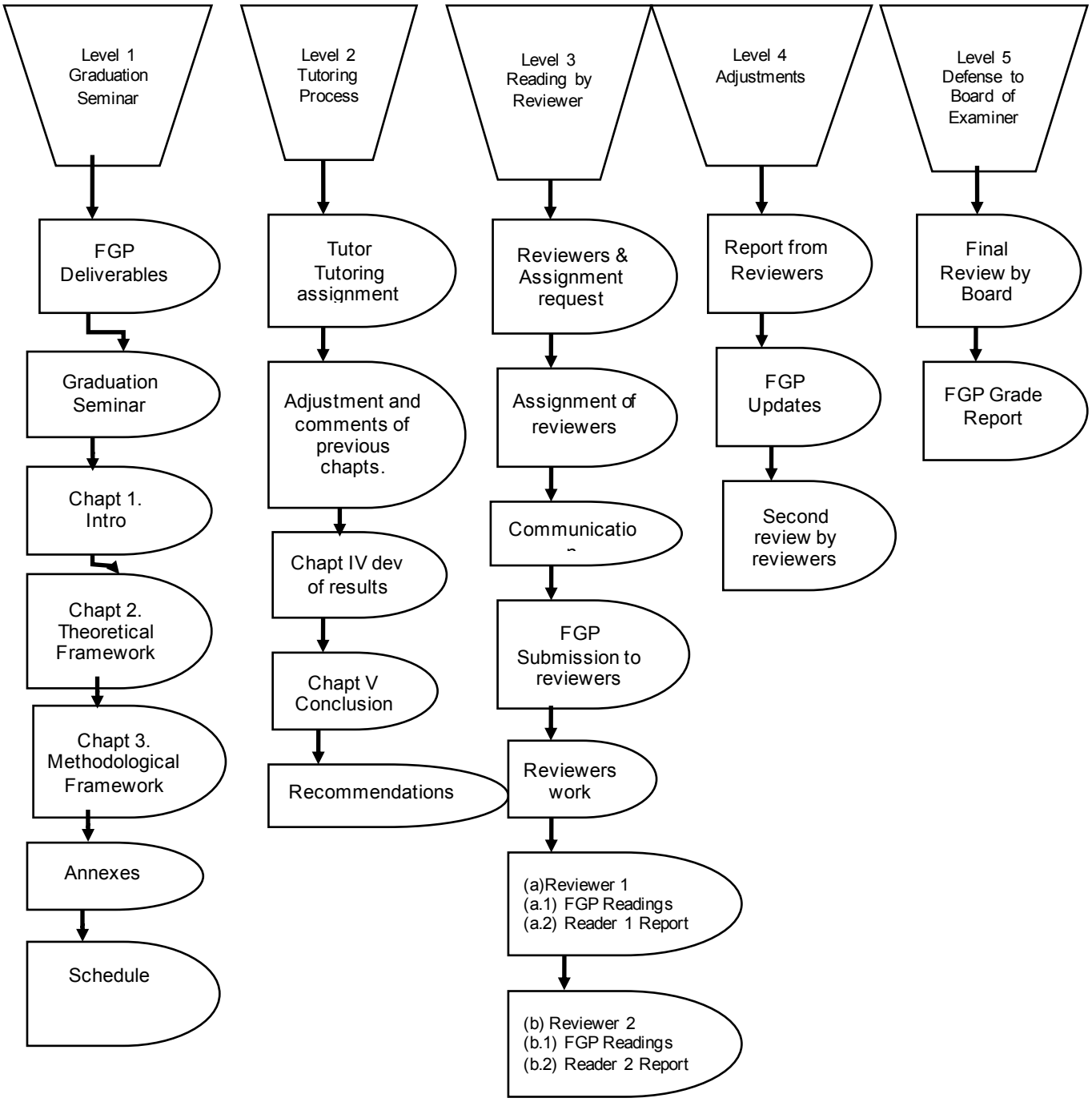
- Board of Directors MCCU
- Members of the MCCU
- General Manager of the MCCU
- Senior Managers and other employees

Indirect stakeholders:

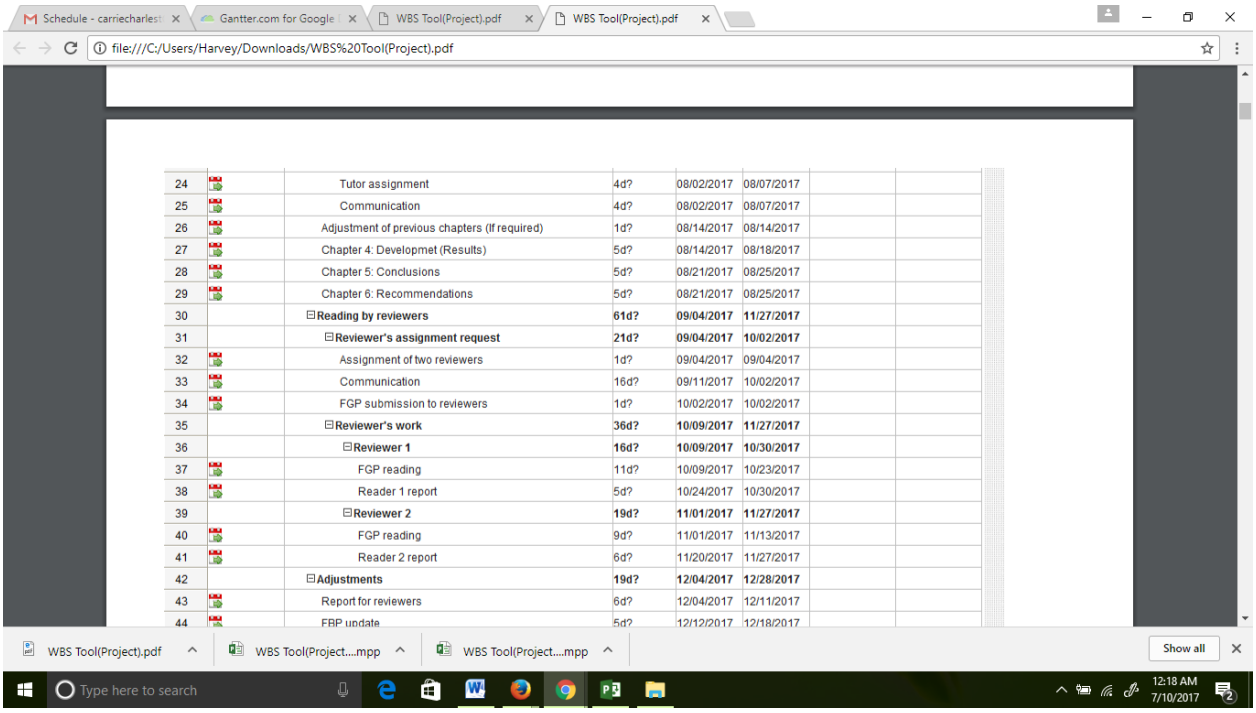
- Dominica Corporative Societies League
- Tutors of UCI

Project Manager:	
Authorized by: CARRIE THOMAS	**Signature:** 

Appendix 2: FGP WBS



Appendix 3: FGP Schedule



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25		Communication	4d?	08/02/2017	08/07/2017
26		Adjustment of previous chapters (If required)	1d?	08/14/2017	08/14/2017
27		Chapter 4: Developmet (Results)	5d?	08/14/2017	08/18/2017
28		Chapter 5: Conclusions	5d?	08/21/2017	08/25/2017
29		Chapter 6: Recommendations	5d?	08/21/2017	08/25/2017
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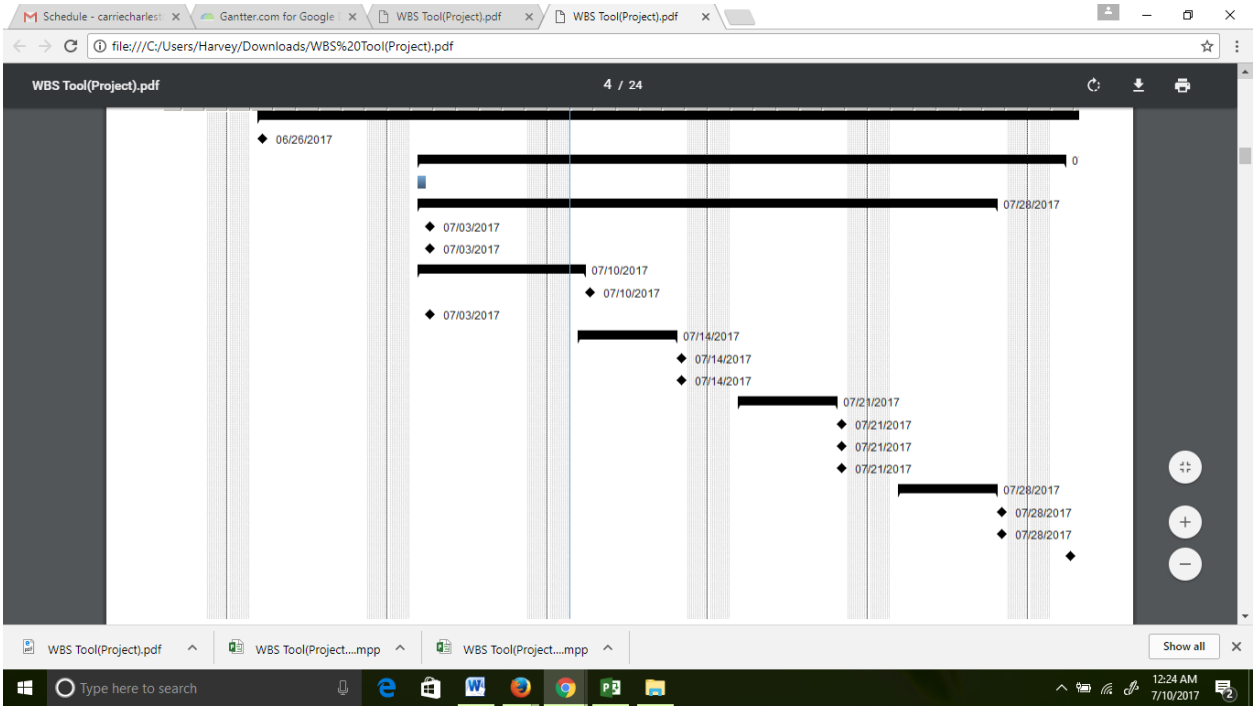
31		**Reviewer's assignment request**	**21d?**	**09/04/2017**	**10/02/2017**
32		Assignment of two reviewers	1d?	09/04/2017	09/04/2017
33		Communication	16d?	09/11/2017	10/02/2017
34		FGP submission to reviewers	1d?	10/02/2017	10/02/2017
35		**Reviewer's work**	**36d?**	**10/09/2017**	**11/27/2017**
36		**Reviewer 1**	**16d?**	**10/09/2017**	**10/30/2017**
37		FGP reading	11d?	10/09/2017	10/23/2017
38		Reader 1 report	5d?	10/24/2017	10/30/2017
39		**Reviewer 2**	**19d?**	**11/01/2017**	**11/27/2017**
40		FGP reading	9d?	11/01/2017	11/13/2017
41		Reader 2 report	6d?	11/20/2017	11/27/2017
42		**Adjustments**	**19d?**	**12/04/2017**	**12/28/2017**
43		Report for reviewers	6d?	12/04/2017	12/11/2017
44		FRP update	5d?	12/12/2017	12/18/2017

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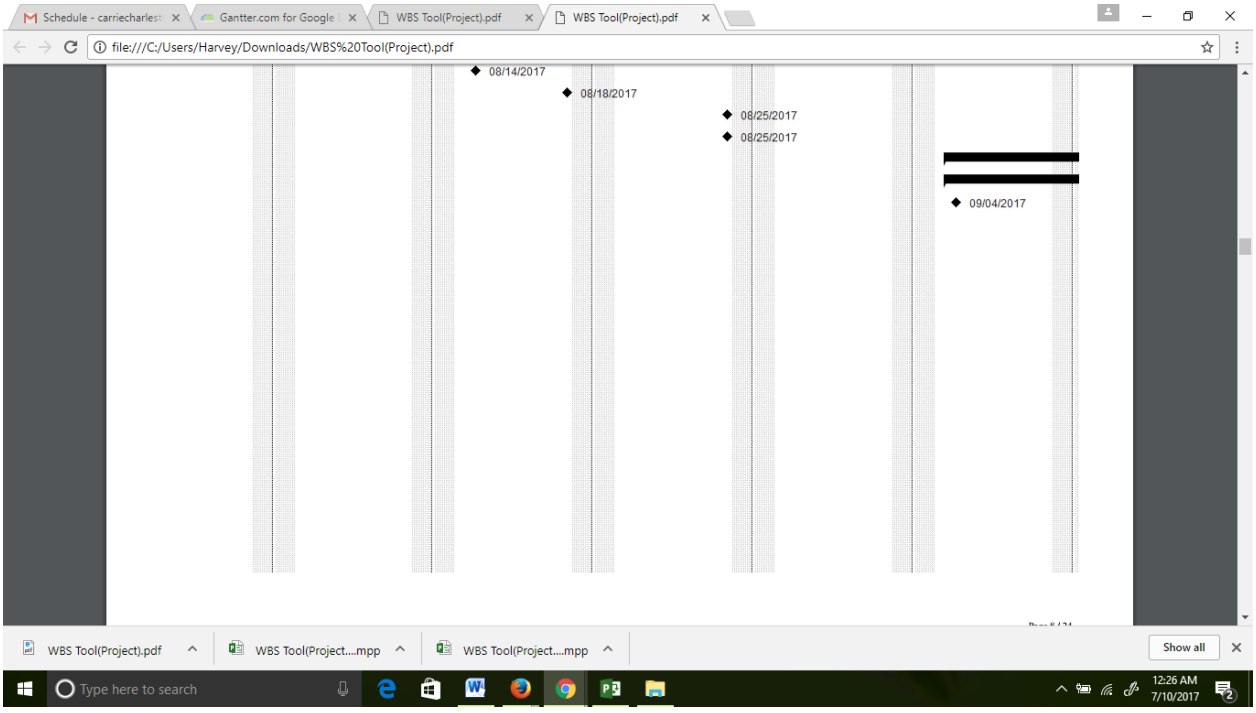
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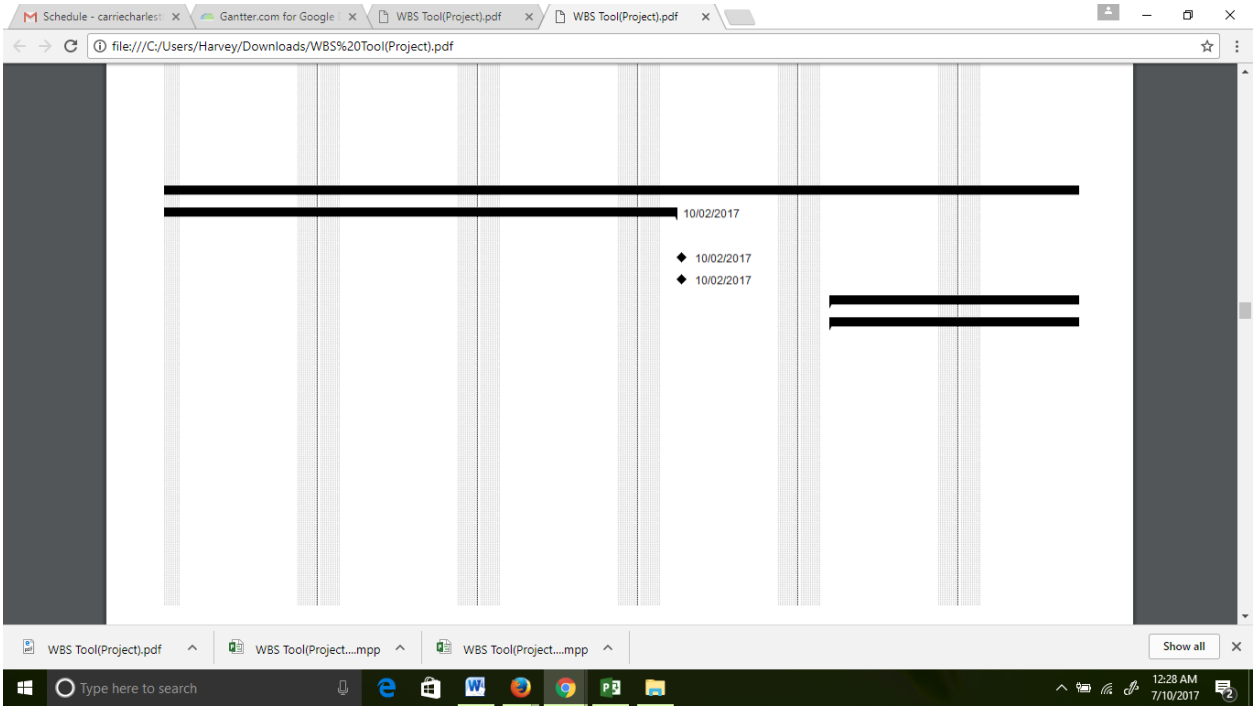
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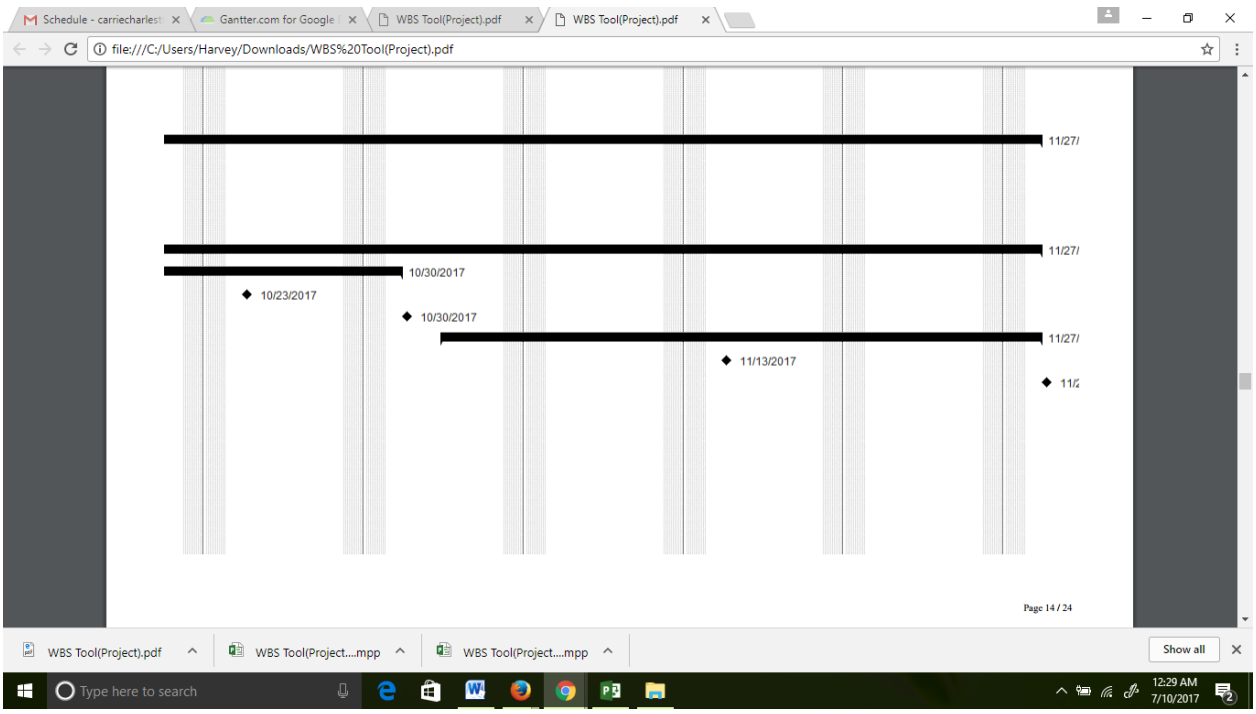
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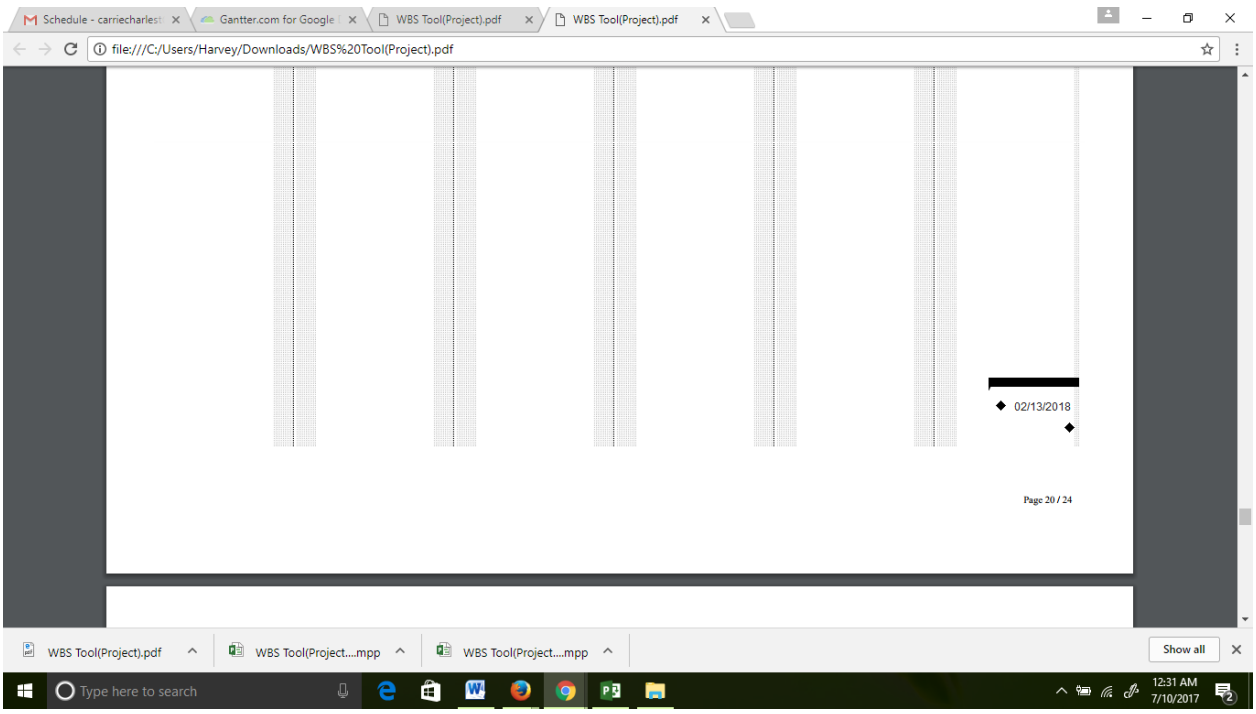
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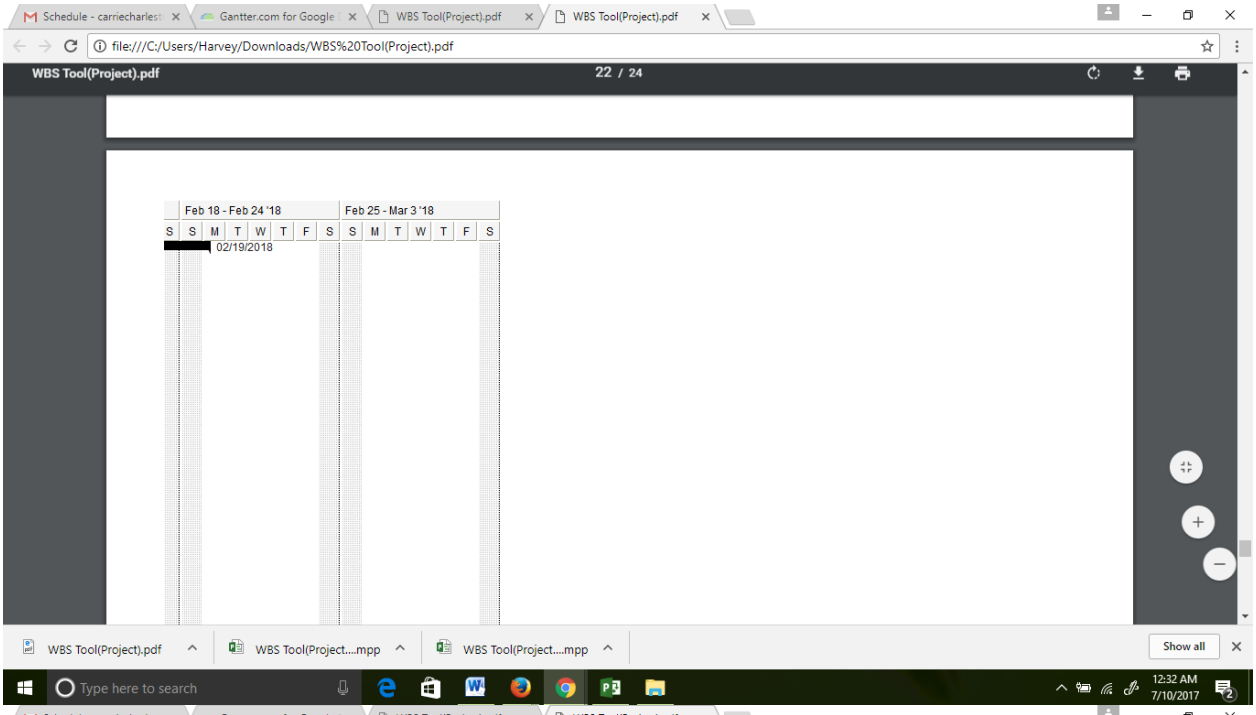
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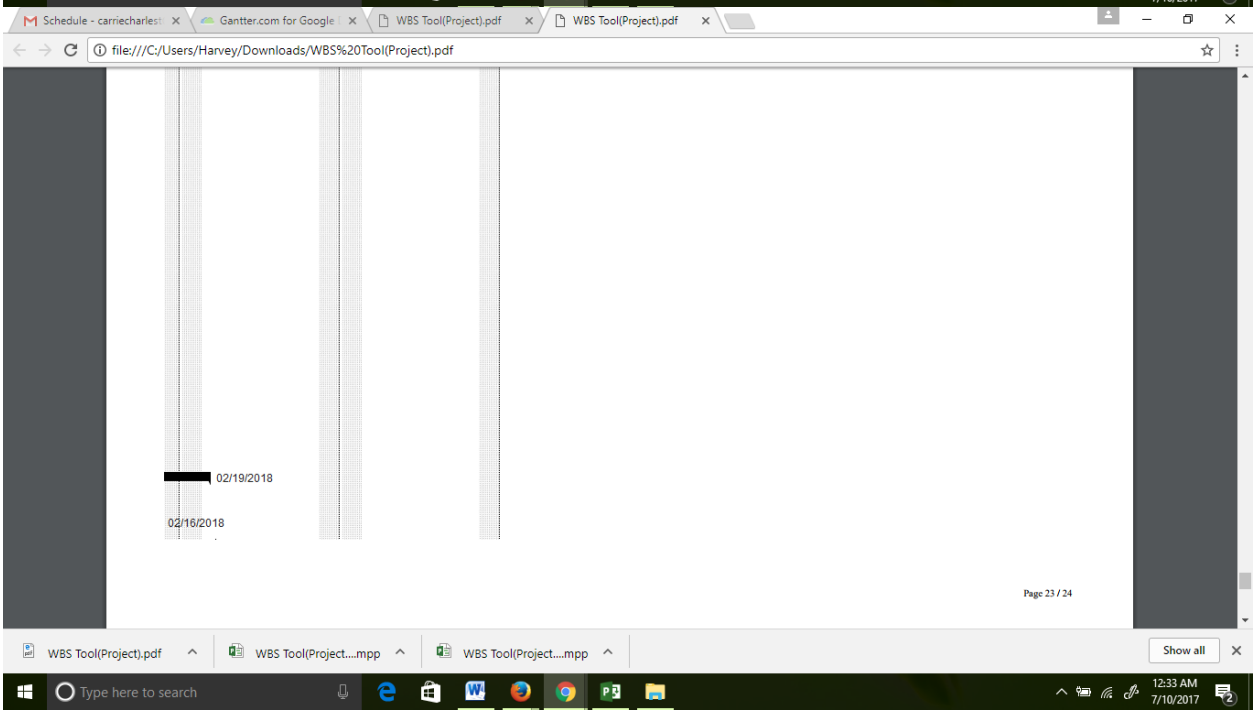
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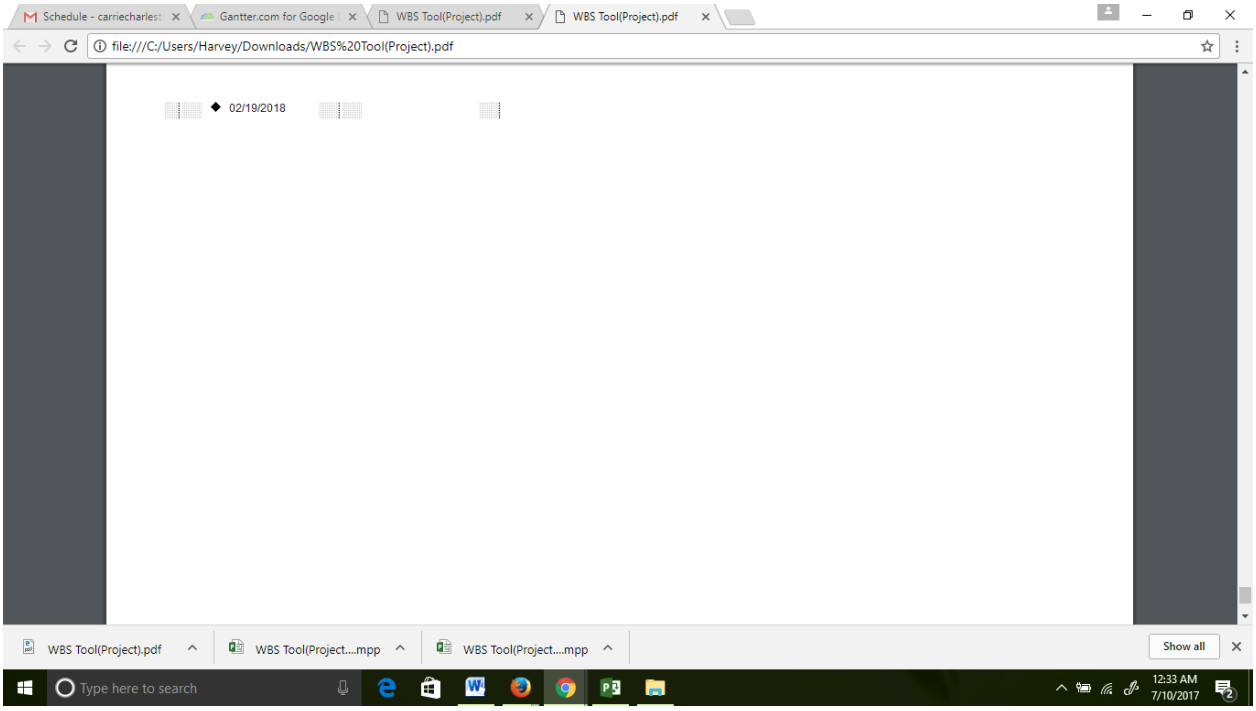
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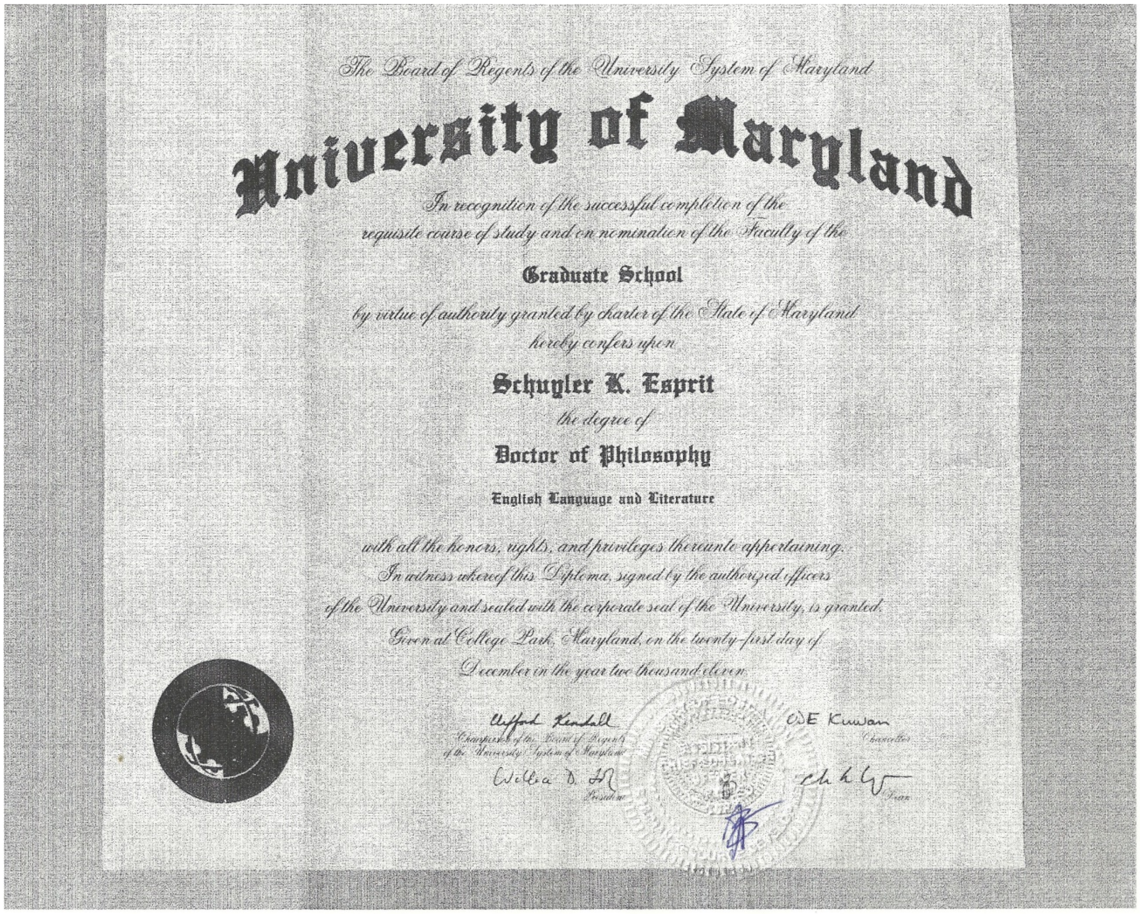

The Board of Regents of the University System of Maryland

University of Maryland

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Graduate School

by virtue of authority granted by charter of the State of Maryland
hereby confers upon

Schuyler K. Esprit

the degree of

Doctor of Philosophy

English Language and Literature

with all the honors, rights, and privileges thereunto appertaining.
In witness whereof this Diploma, signed by the authorized officers
of the University and sealed with the corporate seal of the University, is granted.
Given at College Park, Maryland, on the twenty-first day of
December in the year two thousand eleven.

Chairperson of the Board of Regents of the University System of Maryland

Chancellor

President

Dean