

UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

PROJECT MANAGEMENT PLAN FOR THE EXPANSION OF THE NORTHERN
MEDICAL SPECIALITY PLAZA CLINIC LOCATED IN ORANGE WALK

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THE REQUIREMENTS FOR THE
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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 project to my dad, mom, sisters, and my little nieces, who have shown patience and have encouraged me throughout my studies, especially these past months.

ACKNOWLEDGMENT

I would like to extend my most sincere gratitude to everyone who was part of this journey. Without their support, this would not have been easy. To my tutor Xavier Salas, thank you for all the patience and dedication. Your work is greatly appreciated.

ABSTRACT

The objective of this document is to develop a project management plan for the expansion of Northern Medical Specialty Plaza to carry out, monitor, and control the project. This document serves as a baseline for the project scope, cost, schedule, performance, and other variables of similar nature. It will aid in providing a frame of reference that is used to enforce policies on the project management. This document will play a vital role in the development of this expansion project as all necessary information is documented and will be useful in the process of making changes and documenting all necessary elements that the project entail for a successful completion.

The final product of this project consists of a project management plan for the new expansion of the Northern Medical Plaza project. This plan is composed of the final deliverables of the specified project that correspond to the management plan; these management plans include scope, schedule, cost, quality, resources, procurement, and risk management plans as an outcome of the project, it is identified that the project management plan is a necessary document especially for the following up on inputs from the project team and the key stakeholders. It is recommended that the development of the document is carried out as it is used to define the approach the project team took to deliver the intended project management scope of the project.

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ABBREVIATIONS AND ACRONYMS

EVM- Earned Value Management

FGP- Final Graduation Project

NMP- Northern Medical Plaza

PMI- Project Management Institute

PMP- Project Management Plan

PV- Planned Value

SMP- Stream Management Planning

WBS- Work Breakdown Structure

EXECUTIVE SUMMARY

Standing for its mission, Northern Medical Plaza Ltd. is “committed to excellence and innovation in the provision of medical services. We pledge high quality and affordable healthcare to the people we serve.”

Northern Medical Specialty Plaza stands firm in being one of the first and largest multi-specialty healthcare in Belize. This clinic offers a wide range of services letting patients choose the right doctor for their specific medical needs. With over 24 skilled medical specialists, the clinic provides personalized services and advanced diagnostic imaging technologies. This clinic and management pride themselves in the continuous wellbeing of its patients and community and for that the proposal on the expansion of the clinic has now become a reality. To carry out the expansion of the Northern Medical Specialty Plaza Clinic, there is a lot of documentation that must be done to organize all that is necessary for this project.

The objective of this document was to develop a project management plan for the expansion of the Northern Medical Specialty Plaza Clinic. The document was used by everyone involved in the project to help communicate and obtain detailed information to describe the process that the project was going to undertake. It described the scope, schedule, deliverables, and roles of the project team.

The project management plan helped in organizing and controlling all the information gathered and needed for the project. It played an important role in terms of identifying the management plans that were necessary to carry out this project. This document helped in solving “lack of documentation” and improved the analyzing of data and documenting of important information of a project.

The project aims to create a project management plan for the expansion of the Northern Medical Specialty Plaza Clinic in Orange Walk District. The plan will detail project details such as scope, schedule, cost, resources, and other key plans. It will help the team manage changes effectively, break down large tasks, and prioritize tasks. The plan will ensure sustainability and proper implementation of the project, ensuring its success.

The project aims to create a project management plan for the expansion of the Northern Medical Specialty Plaza Clinic in Orange Walk District. The plan will detail project details such as scope, schedule, cost, resources, and other key plans. It will help the team manage changes effectively, break down large tasks, and prioritize tasks. The plan will ensure sustainability and proper implementation of the project, ensuring its success.

The Final Graduation Project (FGP) general objective was to develop a Project Management Plan for the expansion of Northern Medical Specialty Plaza Clinic project which will also aid in ensuring that the project remains sustainable. The specific objectives were: Objective 1 - To develop a consolidated plan to integrate the necessary project strategies that will aid in the development of the project; Objective 2 - To create an analysis document to collect the requirements needed for the project to be a sustainable project; Objective 3 - To design and create a scope of works plan to establish necessary project information and project expectations; Objective 4 - To develop a schedule management plan to ensure that project deliverables are met; Objective 5 - To create a cost management plan to ensure that the project is that the scopes and requirements of the project are met, and project is completed within

budget; Objective 6 - To develop a risk, change and configuration management plan to obtain information on how the project will record and manage any issues that may arise.

For this FGP the methodology followed were descriptive, qualitative, and primary research methods. This method was implemented in the way that it will assist them in this objective based on the observations. This method observed and recorded the persons involved without direct contact. This method was applied on this objective in the way that data was collected from the interview and compiled in a what that the data can be used to develop the FGP. This method is important and very helpful for this FGP as the data was gathered independently and is data collected firsthand which makes it easier to prepare the plan for the strategies that are needed for the integration plan.

1 INTRODUCTION

The term project is continuously in the business life is an attempt to develop products or services that have a scheduled start date and time of completion. Projects are created by a predetermined resource. They are completely original and one-off works. Projects may undergo various changes during the process and may also improve (Bhide, 2021).

A project management plan can be described as a document that outlines the how, when, and what-ifs during the process of executing a project. It provides an overview of the project's value proposition, execution steps, resources, communication tools and protocols, risks, stakeholders (and their roles) and the deliverables involved in a project's completion. The documents include an executive summary, Gantt and team charts, risk assessment, and communication- and resource-management plans (Good, 2022).

The project management plan acts as a proposal or roadmap to the final success of the pertaining project. This plan does so by aligning talent, purchases, civil works, resources, risk management and high-quality communication around the plan. It also ensures everyone knows their responsibilities, which tasks are involved and when deadlines are so the project stays on track for quality on-time completion (Good, 2023).

This FGP focuses on creating a project management plan for the expansion of Northern Medical Specialty Plaza Clinic project which will also aid in ensuring that the project remains sustainable. This plan will focus on ensuring that the project meets the requirements in terms of meeting the deadlines, keeping within the assigned budget and the overall project's success.

The project management plan that is being developed for this project will aid in planning and managing the project while also creating and describing the project details which include the scope management plan, schedule management plan, cost management plan, and resources management plans which are vital elements of the project. A plan should be prepared with the necessary needs, financing for the project must be provided. Project management process should be prepared, and this plan should be adhered to. It is necessary to select the project team members and always motivate them. It is important to manage the risks and problems that may occur in the project effectively. This management plan will also be an essential tool for the development of the project as it will facilitate the project team in managing changes as the project is being developed without having the risk of not being able to meet projects deadlines.

Such plans allow the project team to have an organized overview of what the project entails and will allow the team members to prioritize activities that are important for the project. Additionally, the document will assist in taking a better control in planning for future changes in scope and cost management plan. The project management plan document will ensure to include all necessary elements and concepts are included for the proper implementation and development of the project while ensuring sustainability is present within the project.

1.1. Background

Being one of the largest multi-specialty healthcare in Belize, Northern Medical Specialty Plaza was one of the first private clinics in the northern side of the country. It offers a wide

range of services at one location, allowing patients to choose the right doctor for their specific medical needs. With two locations in Orange Walk Town and a branch in Corozal Town, the clinic has become the largest and most reliable private healthcare provider in the country. With 24 skilled medical specialists, the clinic provides personalized services and advanced diagnostic imaging technologies.

Over the past 23 years this clinic has focused and strived to provide quality and improve service to its patients. This clinic and its management work hard daily to ensure that all runs well in the clinic. This team is led by Dr. Marco Tulio, who is the Chief Medical Officer, followed by Dr. Jose Salinas as the Chief Operations Officer and below them is Ms. Kendra Campos. With the hard commitment of each member this managing team is composed by Naomie Vasquez as the Human Resources manager, Miguel Ortega as the Head Pharmacist, Antonio Quetzal as the Head Doctor, Patricia Novelo as the Head Nurse, Daniel Alonzo, Laboratory Management, and lastly Dwight Chi, who oversees safety and security.

This private clinic has grown tremendously over the past years and due to support and continuous customer loyalty this clinic is now expanding. This expansion will provide more space availability for the intake of patients, rooms for the installation of new healthcare technology which will aid in better health care and prevent any hassle of going outside the country from medical treatments. This facility has numerous specialized doctors who are also part of the team of stakeholders. Their only goal is to work together with the project team for the successful completion of the project.

1.2. Statement of the problem

The Expansion of the Northern Medical Specialty Plaza is a project which was set in place to improve the services and accommodate more patients at the clinic. To carry out this project, there are several objectives that must be developed and completed to do so. It is important that all projects related are analyzed and discussed. For this, documentation needs to happen. One of the most important parts of this project is to create a project management plan to guide the execution and control of the project phases (NRM, 2023).

To complete a project as such, it is necessary to obtain all the legal permission to be able to proceed with the plans. The problem that is currently being faced is that there are no current plans for this project. To manage a project, it is necessary that the project team is doing the proper planning and is also documenting the different elements that are necessary to carry out each activity in the project.

It is important to create a checklist of all the plans that need to be developed for this project. This will aid in presenting a clear idea of what all would need to be done and where the information needs to be obtained. The development of these plans, which fall directly under the project management plan, will help in documenting the necessary information and it will help whenever changes or risk rise within the project. To solve this lack of documentation within this project, the project team would need to establish a proper communication channel and meet daily to gather all necessary information for the development of the project. Drafts of the element's plans would need to be present so that the information on those plans are validated. In terms of opportunities that need to be seized is time, time plays a key role in

this whole process, so time needs to be taken as an opportunity and have time management to be able to complete plans and tasks.

1.3. Purpose

The Expansion of the Northern Medical Specialty Plaza started off as a proposal, which years later has finally become a reality and is now in the phase of initiation. Each project has a sole purpose, and it is necessary to complete it in the most ideal way. The purpose of this project is to create a project management plan to guide the execution and control of the project phases. It will help in documenting the planning assumptions, decisions, scope, cost, and schedule baselines. This document will be helpful in terms of providing visibility for obscure or ambiguous tasks in the project and single point of reference for everyone, while enforcing scrutiny of the sequence and nature of events and providing a baseline against which execution of the project can be compared.

The benefits which will be brought out due to this project are that the project will be properly documented in case there are any changes that the project stakeholders may need to make. It will help in creating written documentation in case they later decide to rectify on changes that they required and to avoid any conflicts between the project team and stakeholders. The hypothesis is based on ensuring if it possible to create a comprehensive Project Management Plan that includes the necessary requirement that should be applied to prevent sustainability challenges during construction the Clinic. It is necessary to maintain this project as a sustainable project that you can design, complete, and decommission projects while ensuring current needs are met and that the plan for how people in the future can manage the outcomes.

1.4. General objective

To develop a Project Management Plan for the expansion of Northern Medical Specialty Plaza Clinic project which will also aid in ensuring that the project remains sustainable.

1.5. Specific objectives

1. To develop a consolidated plan to integrate the necessary project strategies that will aid in the development of the project (Project Integration Management).
2. To design and create a scope of works plan to establish necessary project information and project expectations.
3. To develop a schedule management plan to ensure that project deliverables are met.
4. To create a cost management plan to ensure that the project is that the scopes and requirements of the project are met, and project is completed within budget.
5. To develop a risk management plan in order the identify and mitigate risks
6. To develop a risk, change and configuration management plan to obtain information on how the project will record and manage any issues that may arise.
7. To create a procurement plan to manage the process of purchase.
8. To develop a stakeholder management plan to identify stakeholders and analyze their input towards the project.
9. To create an analysis document to collect the requirements needed for the project to be a sustainable project.

2. THEORETICAL FRAMEWORK

2.1. Company/Enterprise framework

When Northern Medical Plaza first opened its doors in 2000, the idea of multi-specialty healthcare services was something new to the region. Until then, in the north of Belize, private medical services had been delivered mainly by single-practice clinics, where patients could only see one doctor and one medical specialty.

Multi-specialty healthcare combines many medical specialties and services at one location. This provides patients with a convenient and affordable way to access high quality medical services. Also, a wider range of specialties allows patients to choose the right kind of doctor for their specific medical need. It is in Orange Walk Town, Belize, was the first multi-specialty clinic in the north of the country. In its early days, the clinic consisted of four consultation offices, one ultrasound room and a surgery and delivery room. There were in all four medical specialties available: gynecology, pediatrics, internal medicine, and general surgery.

Thanks to the loyalty and support of our patients, we are one of the largest private healthcare providers in the country, providing a comprehensive range of outpatient and inpatient medical services in 21 medical specialties. We have two locations: a main clinic located in Orange Walk Town and a branch clinic in Corozal Town. Our medical team consists of 24 highly skilled medical specialists working closely together to provide our patients with personalized medical services and life-changing healthcare solutions. Healthcare solutions depend on good diagnosis and at NMP we have one of the best equipped and modern

diagnostic imaging centers in the region offering advanced medical services in x-ray, ultrasound, CT scan, and neuro testing technologies.

2.1.1 Company/Enterprise background

Being one of the largest multi-specialty healthcare in Belize. Northern Medical Specialty Plaza was one of the first private clinics in the northern side of the country, it offers a wide range of services at one location, allowing patients to choose the right doctor for their specific medical needs. With two locations in Orange Walk Town and a branch in Corozal Town, the clinic has become the largest and most reliable private healthcare provider in the country. With 24 skilled medical specialists, the clinic provides personalized services and advanced diagnostic imaging technologies.

2.1.2 Mission and vision statements

Vision Statement

Northern Medical Plaza will be a model of excellence in the quality of medical services. The institution will continuously strive to exceed the expectations of its patients, its workers, and community by constantly improving the service it provides with enthusiasm, excellent customer service, teamwork, and creativity. Above all else, we are committed to the care and improvement of human life.

Mission Statement

Northern Medical Plaza Ltd. is committed to excellence and innovation in the provision of medical services. We pledge high quality and affordable healthcare to the people we serve.

2.1.3 Organizational structure

The organizational structure for the Northern Medical Plaza is as follows Dr. Marco Tulio, who is the Chief Medical Officer, under this lead is Dr. Jose Salinas as the Chief Operations Officer and below them is Ms. Kendra Campos. With the hard commitment of each member this managing team is composed by Naomie Vasquez as the Human Resources Manager, Miguel Ortega as the Head Pharmacist, Antonio Quetzal as the Head Doctor, Particia Novelo as the Head Nurse, Daniel Alonzo, Laboratory Management, and lastly Dwight Chi, who oversees safety and security.

Figure 1 Organizational structure [Source: Northern Medical Specialty Plaza Organization Chart, August 2023]



2.1.4 Products offered

Healthcare solutions depend on good diagnosis and at NMP we have one of the best equipped and modern diagnostic imaging centers in the region offering advanced medical services in x-ray, ultrasound, CT scan and neuro testing technologies.

1. 24/7 Emergency services
2. Anesthesia
3. Cardiology
4. Consultations
5. Dermatology
6. Ear, Nose and Throat
7. Gastroenterology
8. General Surgery
9. Gynecology
10. Hospitalization rooms
11. CT scan
12. Internal Medicine
13. Laboratory
14. Laparoscopy

The services that this clinic offers are necessary to continue providing their patients with the necessary services.

2.2 Project Management concepts

Project concepts can be defined as an abstract idea, concepts are considered to play and important aspects. During the development of this Project, there were several project management concepts that were used in the development of this Project.

1. Communication: a project has a plan for effective information sharing among stakeholders
2. Risk: a project has a plan for identifying and managing potential threats and opportunities
3. Performance: a project has a baseline for measuring and controlling progress, quality, and value
4. Team, Budget, Schedule: a project has an assigned team, budget, and schedule.
5. Scope Management: all the work required, and only the work required by the client
Scope management is concerned with defining and controlling the scope.
6. Risk Management: an exposure to situation that is usually associated with unfavorable outcome.

2.2.1 Project management principles

For the development of this FGP project the following project management principals are to be considered:

1. Formal project management structure: This is a formal way of completing the project on paper before the actual project begins, to create detailed planning followed by the executing of the project based on what was planned.
2. Documented roles and responsibilities: This will aid in the assigning of roles and responsibilities and ensuring that each member complies with their assigned tasks to complete the project.
3. Clear and objective goals and outcomes: This is important to ensure that the planned objectives are focused on to have the expected outcomes.
4. Risk management: This will play a key role as it will help in identifying risks, assessing them while monitoring and reporting risks that are presented in the project.
5. Performance management baseline: This principle is necessary as it sets out the scope of works, budget, and project schedule of the project.

2.2.2 Project management domains

As for the Project management domains, the project domains that are related to the FGP are.

1. Stakeholders: They play a key role in the development of this project; they engage both in the financial process of the project and in implementing and actioning through decision making.
2. Team: This will aid the FGP in a way that the team will set individuals who will perform up to standards to achieve the project objectives.

3. Development of approach and life cycle: This will go hand in hand with the projects deliverable in determining the most appropriate development approach.
4. Planning: One of the most important domains as this is the initial phase where the standards and ideas of the FGP will be set.
5. Delivery: This is the stage where the projects support strategy execution and advancing business objectives should have been met.
6. Measurement: This will involve assessing the project's performance and ensuring that what is necessary is properly implemented.

2.2.3 Predictive, adaptative and hybrid projects

Predictive projects are referred to as to when scope of works and the project requirements are clear and justified in an upfront detailed planning.

Adaptive Project: The concept is when the scope of work and requirements are not easily defined while then creates a rapidly changing environment.

Hybrid Project: This is a form of blending project management it combines different aspects of methodologies.

For this project study, it would be recommended to use the Hybrid project as it can be blended and it combines different project aspects which can be implemented as the project is being worked on.

2.2.4 Project management

Project management involves using specific knowledge, skills, tools, and techniques to deliver value to stakeholders. The application of project management concepts ensures quality assurance, avoids scope creep, and wastages. Applying this concept on the expansion of the Northern Medical Specialty Plaza construction can improve overall project implementation.

2.2.5 Project management knowledge areas and processes

For the development of the project there are key knowledge areas that need to be implemented to integrate project management in these areas:

1. Project integration, which will help in the creating the project charter, develop project management plan, direct, and manage project work.
2. Scope of work, which will entail all activities that need to be completed for the project to be correctly executed.
3. Schedule, which is the schedule plan that will indicate the start and estimated finish date of the project.
4. Cost, which is the management cost plan that will indicate if the project is going within the estimated budget.

5. Risk, which aids in identifying risks and in developing a mitigation plan.
6. Procurement plan, which is important to determine what are the materials necessary for the carrying out of the project.
7. Stakeholder management, one of the key important knowledge areas of this project as the stakeholders are the main sponsors of the project.

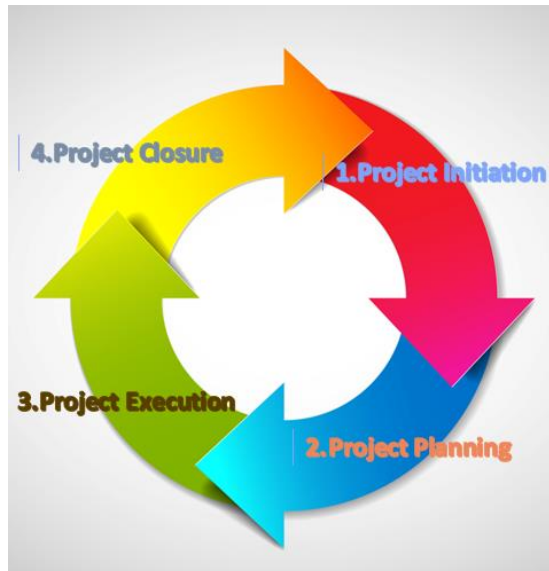
2.2.6 Project life cycle

In a project, the life cycle consists of a series of steps, phases, or stages a project goes through from beginning to finish to guide the project manager and team members on the phases of the project (Institute of project management, 2022).

For the development of this project, there are 4 phases which were implemented for the development of the project.

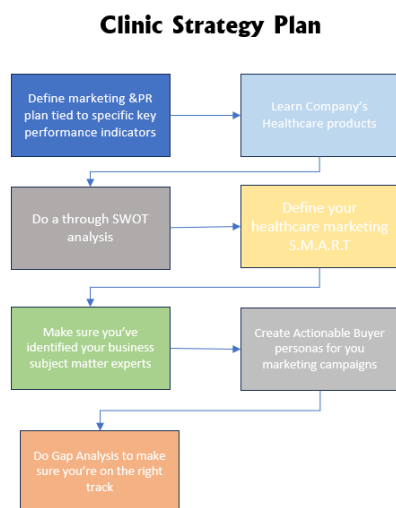
1. Initiation: This phase is when the project lead meets with clients and stakeholders to understand their goals, motivations, and hopes for the project. The aim is to set out the high-level goals that must be met for you to consider the project a success.
2. Planning: In this phase, determines the steps that need to be achieved for the project goals—the “how” of completing a project. Budgets, timelines, milestones, and source materials need to be determined.
3. Execution: This is the phase where the plan is put into action.
4. Closure: This is the final phase where the project is concluded, and its success is evaluated.

Figure 2 Project Life Cycle [Source: L.Blanco, August 2023]



2.2.7 Company strategy, portfolios, programs and projects

Figure 3 Clinic Strategic plan [Northern Medical Specialty Plaza, August 2023]



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

Communication theories can be applied in pretty much every field out there and not just in journalism and literature. Communication theories can improve an individual's management skills, especially when interacting with team members. Project managers better take note (Prescott, 2013). Communication is a theory that can be applied to this project as it is important to maintain a proper communication channel with the team and the stakeholders, so that the information on the status of the project is communicated and everyone is informed on the progress, changes, or risks of the project.

2.3.1 Current situation of the problem or opportunity in study

A current situation that may be faced in this study is time. Time management is one of the most important concepts but the most difficult. As humans it is hard to keep up with time, especially when it involves other people who work in different areas. Organizing meetings to discuss the project may not always go as planned and sometime rescheduling has to be done.

An opportunity can be considered in communication that there is always room for improvement as there are different ways to communicate with different individuals. You just must identify which method of communication works best.

2.3.2 Previous research done for the topic in study

Previous research which has been done from this study is basically based on information retrieved for the project manager (Omir Vega), construction company (HB Construction) and

the stakeholders. Main source of information has been obtained for the Project Management Institute 6th & 7th Edition.

2.3.3 Other theory related to the topic in study

Some theories focus on leadership styles and behaviors of project managers where they are adaptive, servant and transactional leadership. In a project it is necessary to have a good leader to head the project and do what is necessary for the project to be a success. Other theories that focus primarily on principles and processes of project management which can aid in defining the projects organization, setting clear goal and objectives, developing communication plan, managing plans and in return benefit from a good delivery of the project (Huber, 2015).

3 METHODOLOGICAL FRAMEWORK

3.1 Information sources

During the development of a project, it is important to gather the necessary information which will aid in providing more credibility to the data that is being presented within the project. Information sources assist in filling knowledge gaps, identifying opportunities, and helping to make better decisions. When presenting a document, it is necessary to have a different information source to ensure that the information gathered is reliable or not.

There are three main types of information sources: primary, secondary, and tertiary sources. Primary sources are firsthand or most direct evidence of a time or event since they were created by persons or thing what were present at the time or event. While on the other hand a secondary source interprets and analyzes the primary source. These sources are actions or

activities which are one or more steps removed from the events. Lastly, tertiary source is a reference work. This is an overview of the information that was gathered from the primary and secondary sources, but it does not provide interpretation from its origin.

For the development of this FGP, the two main information sources are the primary and the secondary sources. These two sources complement one another and aid in developing convincing research and development of a project. Using these sources will provide direct and indirect access to the matter that is being worked on, the primary source for this FGP will provide more credible evidence while the secondary source for this FGP will provide and show how the project work related to existing research. Taking into consideration and implementing both the primary and secondary source will assist in evaluating and identifying possible gaps of knowledge that may be present in the FGP.

3.1.1 Primary sources

A primary source is an original material, document. It provides raw information and firsthand evidence. This source gives direct access to the subject research. They are created by witnesses or records who experience the event or conditions of the document (Delozier, 2012).

For this FGP interviews will be conducted with several individuals who partake in this project to gather the necessary information to develop and implement what is needed for this project.

3.1.2 Secondary sources

Secondary sources are sources that were created by individuals who did not experience the event firsthand. This source interprets and analyzes the primary source and is one or more events away from the event (Kramer, 2022).

A key advantage of using a secondary source is that data is readily available in most cases, especially when it comes to books and internet sources.

For this FGP all documentation was found in the Project Management Institute textbook both 6th and 7th edition. This was used to emphasize on the information for related areas of the FGP and the further support the information provided.

Chart 1 Information sources [L. Blanco, September 2023]

Objectives	Information sources	
	Primary	Secondary
To develop a consolidated plan to integrate the necessary project strategies that will aid in the development of the project.	<p>Interview the project leader.</p> <p>Observation on what the project stands.</p> <p>Recording/Videos: On Project strategies “Strategy Development: What is strategy and how to develop one” (Sasal, 2017)</p>	<p>Textbooks:</p> <p>Project Management Institute textbook both 6th and 7th edition</p> <p>Project Management Institute. (2017). <i>A guide to the Project Management Body of Knowledge</i> (PMBOK guide) (6th ed.). Project Management Institute.</p>

Objectives	Information sources	
	Primary	Secondary
To create an analysis document to collect the requirements needed for the project to be a sustainable project.	<p>Conduct interview with project leader to collect information on the project development.</p> <p>Conduct a survey with necessary information on the requirements for a project to remain a sustainable project.</p> <p>Recording/Videos on sustainable projects “Sustainable Development Goals and tips” (Illustrated, 2020)</p>	<p>Textbooks:</p> <p>Project Management Institute textbook both 6th and 7th edition</p> <p>Project Management Institute. (2017). <i>A guide to the Project Management Body of Knowledge</i> (PMBOK guide) (6th ed.). Project Management Institute</p> <p>Article: Sustainability in Project Management Practice (Johannesburg, 2000)</p>

Objectives	Information sources	
	Primary	Secondary
To design and create a scope of works plan to establish necessary project information and project expectations.	<p>Interview project leader to get insights on the project activities, scope of works etc.</p> <p>Interview Contractor to get the information must how they plan on starting and carrying out the project according to what is on the project scope</p>	<p>Textbooks:</p> <p>Project Management Institute textbook both 6th and 7th edition</p> <p>Project Management Institute. (2017). <i>A guide to the Project Management Body of Knowledge</i> (PMBOK guide) (6th ed.). Project Management Institute</p>
To develop a schedule management plan to ensure that project deliverables are met.	<p>Interview project team in other to obtain the information on the project schedule to develop a plan that goes according to the project's coordination's.</p>	<p>Textbooks: Project Management Institute textbook both 6th and 7th edition Project Management Institute. (2017). <i>A guide to the Project Management Body of Knowledge</i> (PMBOK guide) (6th ed.). Project Management Institute</p> <p>Article: Design and development of a schedule management plan (Christopher, 2011)</p>

Objectives	Information sources	
	Primary	Secondary
To create a cost management plan to ensure that the project is that the scopes and requirements of the project are met, and project is completed within budget.	Interview project team (Project Leader, Financial Administrator) to get the necessary information on the project scopes and requirements of the project to develop the cost management plan.	Textbooks: Project Management Institute textbook both 6 th and 7 th edition Project Management Institute. (2017). <i>A guide to the Project Management Body of Knowledge</i> (PMBOK guide) (6th ed.). Project Management Institute Textbook: Project Cost Management plan (Buchner, 2015)
To develop a risk, change and configuration management plan to obtain information on how the project will record and manage any issues that may arise.	Observe the surrounding of the project and factors which may affect it. Interview the project team to get information on the factors or similar risk that they have encountered on any previous project to get insights on how to deal with risk, change and other factor that may keep back the project.	Textbooks: Project Management Institute textbook both 6 th and 7 th edition Project Management Institute. (2017). <i>A guide to the Project Management Body of Knowledge</i> (PMBOK guide) (6th ed.). Project Management Institute Integration of Risk Management into Strategic Planning: A New Comprehensive Approach (Virginia, 2016)

3.2 Research methods

Research Methods are considered specific procedures that are used for the collecting of and analyzing of data. This concept are strategies, techniques or processes which is utilized to collect data or evidence for the analysis to uncover new information or create better understanding of information or topic (Shulka, 2020).

Research methods can be a plus as they are efficient in gathering facts from a vast amount of information. There are several types of research methods, qualitative, quantitative, primary, secondary, descriptive, and experimental. Qualitative is collecting, analyzing, and interpreting non-numerical data, such as language. While Quantitative research is the method that is used to generate numerical data by using a lot of techniques such as logical, statical and mathematical techniques (McLeod, 2023).

On the other hand, primary research is any original data that you collect yourself for the purpose of answering research questions. Secondary research is the data that has already been collected by other researchers (Scribbr, 2022).

Descriptive research is a method that describes the demographics of the research variable. This aims to statistically analyze data collected through observation and survey cases. Experimental research is considered a more scientific approach in dealing with two or more variables. It is conducted to bring out the cause effect relationship between variables (Voxco, 2021).

For the development of this FGP, the three main research methods implemented for carrying out this project are qualitative research, descriptive and secondary research.

3.2.1 Qualitative Methods

This method is designed to reveal the behavior and perception of a target audience with reference to the topic. Qualitative research methods deal with words and meanings which allows us to explore ideas and experience in depth. It is used to understand concepts, thoughts, or experiences. This type of research enables you to gather in-depth insights on topics that are not well understood. Most qualitative methods include interviews with open-ended questions, observations described in words, and literature reviews that explore concepts and theories (Streefkerk, 2019).

Descriptive Research Method

The description research method is a method that describes the characteristics of the population or phenomenon studied. This descriptive methodology focuses more on the “what” of the research subject than the “why” of the research subject. The term for this descriptive research refers to research questions, design of the study, and data analysis conducted on that topic. We call it an observational research method because none of the research study variables are influenced in any capacity (Bhat, 2021).

Primary Research Method

A primary research method can be classified as a research method that relies on direct data collection, rather than relying on data that’s already been collected by someone else. In other words, primary research is any type of research that you undertake yourself, firsthand, while using data that has already been collected is called secondary research. A positive outcome of this method is that one can maintain control over the quality of the data collected, and can ensure firsthand that it is objective, reliable, and valid (George,2023).

Chart 2 Research methods [Source: L. Blanco, September 2023]

Objectives	Research methods		
	Descriptive Research Method	Qualitative research Method	Primary Research Method
To develop a consolidated plan to integrate the necessary project strategies that will aid in the development of the project.	This method will be implemented in the way that it will assist them in this objective based on the observations, this method will observe and record the persons involved without direct contact.	This method is applied on this objective in the way that data will be collected from the interview and complied in a what that the data can be used to develop the FGP.	This method is important and very helpful for this FGP as the data can be gathered independently and is data collected firsthand which make it easier to prepare the plan for the strategies that are need for the integration plan.

Objectives	Research methods		
	Descriptive Research Method	Qualitative research Method	Primary Research Method
To create an analysis document to collect the requirements needed for the project to be a sustainable project.	The descriptive method on this object will collect and analyze data that was gathered during the survey and the interview carried out. This method collects a large amount of data from the subject or topics through questionnaires or the interviews.	This method is to be used to collect interview from the interview and observations done. Observation on what were seen, heard, or encountered.	This method, unlike this method, can often supplement or strengthen existing secondary research. This will help in this active collecting of data for the requirement need for the project to follow as a sustainable project.

Objectives	Research methods		
	Descriptive Research Method	Qualitative research Method	Primary Research Method
To design and create a scope of works plan to establish necessary project information and project expectations.	For this objective this method will focus mostly on data collection as it is necessary to obtain the necessary information about the project's activities, and what all work will be carried out during the project. Under this method the observational method will be applied in order determine the scope of work	The method that will be used is to compile information gathered from the interview regarding the scope of work and what is expected of the project.	In this method the information that is needed to be gathered is for the works that are to be carried out for the FGP.

Objectives	Research methods		
	Descriptive Research Method	Qualitative research Method	Primary Research Method
To develop a schedule management plan to ensure that project deliverables are met.	The data collected is qualitative and quantitative, it gives a holistic understanding of a research topic and how each activity will fall into place according to the schedule. The information is varied, diverse, and thorough.	The qualitative method that will be used to collect and analyze the information obtain from the interview regarding the development of the schedule management plan.	In this method the data collection being applied is interviews. Interviews rely on asking questions to collect information about a group of people. However, how this is done is slightly different. interviews involve two or more people—one of whom is you, the interviewer, who asks the questions.

Objectives	Research methods		
	Descriptive Research Method	Qualitative research Method	Primary Research Method
To create a cost management plan to ensure that the project is that the scopes and requirements of the project are met, and project is completed within budget.	This research method will aid in the data collection for the development of the cost management plan as it will implement an additional method within in other to get quantitative data.	For this objective this method will aid in the gathering of data for the cost management plan, data that will be used to develop the plan and identify the necessary costing of the project.	For this method it is necessary to maintain control over the quality of the data collected, and to ensure firsthand that it is objective, reliable, and valid. This objective is an important part of the project as it would finance the project and the information gathered is to create a budget.

Objectives	Research methods		
	Descriptive Research Method	Qualitative research Method	Primary Research Method
To develop a risk, change and configuration management plan to obtain information on how the project will record and manage any issues that may arise.	Under the Descriptive method a method that will be used for this objective is the” The basis for further research”: Researchers further research the data collected and analyzed from descriptive research using different research techniques. The data can also help point towards the types of research methods used for the subsequent research.	This method will be used in conducting in-depth interviews to collect the necessary information and past experiences on risks, changes of configuration that may happen through the project phases.	You maintain proprietary control over what you find out, allowing you to share your findings with like-minded individuals or those conducting related research that interests you for the gathering of information based on past or similar project which may have face similar risk, changes, and configuration. This data collect is necessary.

3.3 Tools

Tools are considered important when developing a project, they play a vital role in project management. Project management tools are software, strategies, and procedures that help project managers and teams to effectively plan and execute and control projects. These tools help in streamlined communication, more focus on project scope, team actualization, easier collaboration, and planning is made easier. They also enhance risk mitigation strategies and take help from all resources at hand to deploy effective countermeasures. Process becomes effortless and a positive result is obtained (Poutintsev, 2021).

Tools that are to be used for this FGP are: WBS Diagrams, Gantt chart, calendar, project timeline, mind map, cost estimate, budget, cost monitoring, brainstorming, probability, and impact matrix.

Chart 3 Tools [Source: L. Blanco, September]

Objectives	Tools
<p>To develop a consolidated plan to integrate the necessary project strategies that will aid in the development of the project.</p>	<p>For this objective, two main tools will be used for this FGP.</p> <p>For this FGP the WBS will be used to breakdown key project elements into smaller components. This tool will help in mapping all necessary tasks of the project. It will aid in defining, validating, and controlling the project scopes. This will aid in organizing and identifying work and breaking it down into smaller and more manageable pieces. This manage critical paths and would ensure that the necessary strategies are integrated into the FGP.</p>
<p>To create an analysis document to collect the requirements needed for the project to be a sustainable project.</p>	<p>For this objective a tool that would be used is the project dashboards. This tool would generally allow us to view the project's progress and performance, it would help in collecting high-level data. It would also allow us to analysis, determine, and implement the correct methods for the project to remain a sustainable project.</p>

Objectives	Tools
<p>To design and create a scope of works plan to establish necessary project information and project expectations.</p>	<p>Essential tools for this objective are a WBS, meetings.</p> <p>For this FGP the WBS will be used to breakdown key project elements into smaller components. This tool will help in mapping all necessary tasks of the project.</p> <p>It will aid in defining, validating, and controlling the project scopes.</p> <p>Meeting in this case will be used as a tool which will help to maintain proper communication with project team and stakeholder, this will help in providing daily/week update on the different activities that are carried out for the project. In the meeting it will also be discussed if there are any risks, change or concerns that need to be address as well and identifying countermeasure for any issue that might have arisen.</p>
<p>To develop a schedule management plan to ensure that project deliverables are met.</p>	<p>Tools used for the development of a schedule management plan are calendar, Gantt chart and schedule network analysis.</p> <p>The calendar would aid.</p>

Objectives	Tools
<p>To create a cost management plan to ensure that the project is that the scopes and requirements of the project are met, and project is completed within budget</p>	<p>Tools that are essential in the development of a cost management plan are</p> <p>Cost estimate plan- this is important so that it can be used at the initial phase of the project to determine the approximate cost of the project.</p> <p>Budgeting- this is also an important tool as it is incorporated in the planning phase of the project to allocate the resources and set a baseline for the FGP cost.</p> <p>Cost monitoring- this tool is necessary in the execution phase as it is important that during the different phases of the project tracking of the actual cost is done to compare with the budget.</p>
<p>To develop a risk, change and configuration management plan to obtain information on how the project will record and manage any issues that may arise</p>	<p>Brainstorming is an important tool for the development of a risk management plan, as must assess the risks that could impact your project.</p> <p>Probability and impact matrix- This tool will help in prioritizing risks which are important since do not want to waste time chasing a small risk and exhaust your resources.</p>

3.4 Assumptions and constraints

There are two main factors that must be considered when developing a project. In the project assumptions and constraints are identified at the beginning of the project. The project life cycle will be refined and re-analyzed. Project assumptions and constraints are key to many processes in the (PMBOK, 2017).

An essential aspect of the project is that assumptions and constraints are not managed like requirements or risks. However, it is important to document them as it helps to protect you from future aggravation. Assumptions and constraints in the project scope statement should be identified and documented. Assumptions are true, during the events or circumstances of the project. While constraints are limitations. Assumptions and constraints play a vital role in the planning process as the foundation of your project management plan. Assumptions are a potential risk for your project because you are in trouble if any assumption is incorrect. Your risk management plan heavily depends on assumptions and constraints. Failing to identify any of them can affect your project (Usmani, 2011).

Chart 2 Assumptions and constraints [Source: L. Blanco, September 2023]

Objectives	Assumptions	Constraints
<p>To develop a consolidated plan to integrate the necessary project strategies that will aid in the development of the project.</p>	<p>-All necessary resources will be obtained. -The necessary information will be obtained from the project leader</p>	<p>- All necessary information on this plan will be got from the project leader. - Only 2 interviews will be carried out to obtain necessary information.</p>
<p>To create an analysis document to collect the requirements needed for the project to be a sustainable project.</p>	<p>-Team members have all the required skills. - All necessary data for the requirement of a sustainable project will be obtained from the project lead.</p>	<p>-Time should not be limited when carrying out research o interviews.</p>

Objectives	Assumptions	Constraints
<p>To design and create a scope of works plan to establish necessary project information and project expectations.</p>	<p>-All necessary resources will be obtained.</p> <p>During the rainy season, work can still be carried out indoors.</p> <p>-The supplier will deliver consumables on time.</p>	<p>-You must work with the available resources.</p>
<p>To develop a schedule management plan to ensure that project deliverables are met</p>	<p>-Data will be readily available as for the start and completion time of the project.</p>	<p>-Only the necessary information will be obtained for the project leader regarding the project schedule.</p>

Objectives	Assumptions	Constraints
	<p>The project leader will be available everyday at least for an hour to get the necessary information from him</p>	<p>This schedule management plan will be completed within 2 days.</p>
<p>To create a cost management plan to ensure that the project is that the scopes and requirements of the project are met, and project is completed within budget.</p>	<p>All project activities and purchases are set in place and document so that the cost management plan can be developed.</p>	<p>-I must be able to develop the cost management plan with the available resources.</p>

Objectives	Assumptions	Constraints
	<p>-Project leader will be available for the next meeting</p>	
<p>To develop a risk, change and configuration management plan to obtain information on how the project will record and manage any issues that may arise.</p>	<p>All relevant stakeholders / project team will come to the next meeting to discuss any risk, changes or configurations that may be present in the project so that a risk management plan can be created.</p>	<p>-Risk management plan should be elaborated within a weeks' time with all possible risks and identified countermeasure.</p>

3.5 Deliverables

Deliverables are outputs that can help you achieve project objectives incrementally. It is project milestones are checkpoints which help to check and know that the project is going on the right direction, project deliverables are complete outputs that can stand alone. The successful submission of project deliverables is a byproduct of the proper execution of project milestones. These deliverables give a better grasp of the work that needs to be done for the project. It also aids in making a more accurate estimate of scope, timeline, and budget (Donato, 2022).

Overall, it allows the team to work independently, align expectations between the team and stakeholders and raise team morale through visible progress. There are two types of deliverables: (Donato, 2022).

Internal deliverables are submitted to internal stakeholders, such as upper management, company shareholders, and your team.

External deliverables are those you submit to people outside your organization (external stakeholders): clients, investors, the government, suppliers, customers, media, and other relevant institutions.

Chart 5 Deliverables Tools [Source: L. Blanco, September 2023]

Objectives	Deliverables
To develop a consolidated plan to integrate the necessary project strategies that will aid in the development of the project.	Project Documentation- This is a document that is prepared during the lifecycle of the project from start to finish. Which will actively contribute the create and develop of the plan for the integration of necessary strategies for the development of the project.
To create an analysis document to collect the requirements needed for the project to be a sustainable project.	Design plan for the project- This design plan will create an idea of what the project entails and how it will be able to adapt to the requirements for the project to be a sustainable project and how it can continue contributing to sustainability one the project is completed.
To design and create a scope of works plan to establish necessary project information and project expectations.	Project Scope Template- This deliverable will help identify project objectives, tasks, exclusions, and constraints so you and your team have a clear idea of the work that will be executed to deliver your project. Project Scope Statement- This statement lists the final deliverable for the project, whether that's a product or service. All deliverables in the project will be described in detail in the project scope statement as it helps avoid confusion with stakeholders later in the project.

Objectives	Deliverables
To develop a schedule management plan to ensure that project deliverables are met.	A report on the different activities and scopes of work that the project entails. This deliverable will help in analysis and identifying the different activities that need to be considered and inputted in the project plan.
To create a cost management plan to ensure that the project is that the scopes and requirements of the project are met, and project is completed within budget.	A financial report will all necessary expense is required to complete this objective. This deliverable will help in including all necessary works and purchases that are required for the development of the FGP
To develop a risk, change and configuration management plan to obtain information on how the project will record and manage any issues that may arise.	Risk report- This is necessary to analyze the risk that the project may be vulnerable to. This risk report deliverable plays an important role in this objective as risk can impact the project negatively in order to have countermeasure set in place it is necessary to have the risk report on hand and the project documentation.

4 RESULTS

4.1 Scope Management Plan (Consolidated Plan)

Consolidated plan aids complying all plans for the change initiative. It need not be a single document but can make reference to other plans including stakeholder management and communications, risk management, quality management. The purpose of the consolidated plan is to document the outcomes of the whole planning process and to provide the primary reference for managing the change initiative.

This plan goes along with Project integration management, for the initial process of the development of the Project Management Plan for the Expansion of the Northern Medical Specialty Plaza Clinic a Project Charter was created to meet the objective one. The Project Charter was prepared by the project managers to explain to participants and stakeholders the scope of a project, project objectives, assumptions, who will participate in the project, along with other details such as possible risks. The PMBOK ® Guide was used as a fundamental resource for the creation of the Project Charter. Additionally, the PMBOK ® Guide highlighted the following inputs, tools and techniques which are required to develop a Project Charter as shown in figure 4 below (Project Management Institute, 6th edition. P. 75).

Figure 4 Project Charter [PMBOK, 2017]

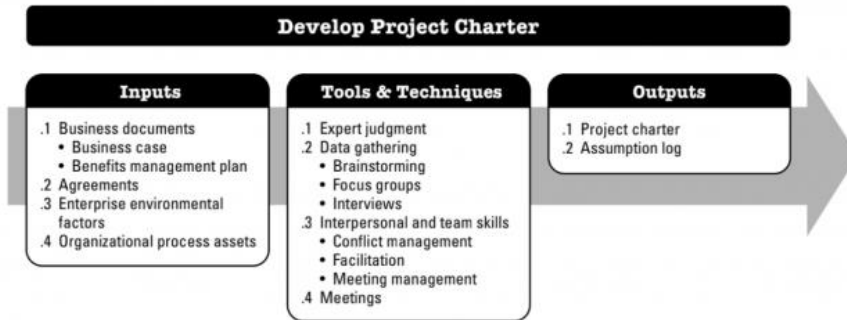


Figure 4-2. Develop Project Charter: Inputs, Tools & Techniques, and Outputs

Chart 6 Project Charter [Source: L. Blancco September]

PROJECT CHARTER	
Version 1.0	November 9, 2023
	Project Management Plan for the Expansion of the Northern Medical Specialty Plaza Clinic
Application Area/Sector	Health Sector
Knowledge Areas/Processes Processes: (a) Planning	Knowledge areas: <ul style="list-style-type: none"> • Identify participants: This includes Stakeholders, Project Manager, Project Engineer, Permit officer, Project team, and end users

<p>(b) Monitoring and Controlling</p> <p>(c) Execution</p>	<ul style="list-style-type: none">• Ensure that Planning and designing of the project architectural plan is done.• Ensure that permits are obtained• Prepare for foundation works<ul style="list-style-type: none">○ Setting out○ Earth works○ Ground floor○ Ground beam○ Footing• Conduct second phase Building enclosure along with all sub-activities• Proceed with phase three once phase two is completed. This includes Roofing of the constructed building• Ensure the finishing phase continues as soon as roofing is completed.• Conduct electrical working on building and ensure wiring is done properly• Lastly, finalize project phases by ensuring that the landscaping phase is
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	<p>completed with all activities that are included.</p> <p>Process groups:</p> <ul style="list-style-type: none"> • Project Initiation • Project Planning
Business Case	
<p>Northern Medical Plaza Ltd. is a leading multi-specialty healthcare clinic in Belize, offering personalized services and advanced diagnostic imaging technologies. The clinic's expansion proposal has become a reality, requiring extensive documentation to organize all necessary information. The project management plan was developed to address the lack of documentation and improve data analysis. The plan aims to detail project details such as scope, schedule, cost, resources, and other key plans, ensuring sustainability and proper implementation. The Final Graduation Project (FGP) aimed to develop a consolidated plan, an analysis document, a scope of works plan, a schedule management plan, a cost management plan, and a risk, change, and configuration management plan. The methodology used was descriptive, qualitative, and primary research methods, which were used to observe and record the participants without direct contact. The FGP aimed to ensure the project's success and sustainability, ensuring the clinic's continued commitment to providing high-quality and affordable healthcare to its patients and community.</p>	


General Objective	To develop a project management plan to ensure that the project for the construction of the Northern Medical Plaza Expansion is completed with the proper documentation and meet the customers' expectations.
Specific Objectives	<ol style="list-style-type: none"> 1. To develop a consolidated plan to integrate the necessary project strategies that will aid in the development of the project (Project Integration Management). 2. To create a scope of works plan to establish necessary project information and project expectations. 3. To develop a schedule management plan to ensure that project deliverables are met. 4. To create a cost management plan to ensure that the project is that the scopes

	<p>and requirements of the project are met, and project is completed within budget.</p> <p>5. To develop a risk management plan in order to identify and mitigate risks</p> <p>6. To develop a risk, change and configuration management plan to obtain information on how the project will record and manage any issues that may arise.</p> <p>7. To create a procurement plan to manage the process of purchase.</p> <p>8. To develop a stakeholder management plan to identify stakeholders and analyze their input towards the project.</p> <p>9. To create an analysis document to collect the requirements needed for the project to be a sustainable project.</p> <p>10. To ensure all documentation is readily available and that all project phases are properly completed.</p>
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Preliminary Scope	
<p>The project seeks to create a project management plan for the expansion of Northern Medical Specialty Plaza during the construction process. This project management plan will aid in documenting and analysing the different phases of the project in order to ensure that the project objectives are met. Moreover, the development of creation of the project management plan will ensure that the project team along with the stakeholder are at the same pace and are aware of the different activities in the project. The approach will be to use site visits and meetings to engage stakeholders at all levels.</p>	
Requirements	
<p>Site Visits and meetings should fulfill the following requirements:</p> <ol style="list-style-type: none"> 1. Must be engaging <ul style="list-style-type: none"> • Use a variety of activities to gather information • Stakeholders must be involved in the process • Interaction between project team and stakeholders must remain consistent. 2. At least two (2) site visits and meetings must take place weekly. 3. Site Visits and meetings should not last more than 3 hours. 4. Ensure that timing for site visits and meetings should be convenient to all stakeholders. <ul style="list-style-type: none"> • Ensure 90% of stakeholders are present. 5. Transmitting suitable information should be presented to engage stakeholders. 	

<p>6. Create appropriate methods to collect feedback from stakeholders.</p> <p>7. Pre-schedule site visits and meetings</p> <ul style="list-style-type: none"> • Date and time should be known in advance. 	
Assumptions	<ol style="list-style-type: none"> 1. All necessary resources will be obtained. 2. The necessary information will be obtained from the project leader 3. Team members have all the required skills. 4. All necessary data for the requirement of a sustainable project will be obtained from the project lead. 5. All project activities and purchases are set in place and document so that the cost.
Constraints	<ol style="list-style-type: none"> 1. Delay with obtaining the construction permit (without permit construction cannot commence) 2. Climate change, works can not be carried out if there is too much rain

	3. Stakeholders may require a change in the scope of works
Preliminary Risks	<ol style="list-style-type: none"> 1. Weather conditions 2. Limited skilled workers 3. Changes in architectural drawings 4. Scarcity on construction material
Budget	
Cost Estimate	\$377,925.00 BZ
Cost Baseline	\$411,242.74 BZ
Total, Cost	\$435,917.56 BZ
Milestones	
Activities	Start Date End Date
Identify participants	June 29, 2023 June 30, 2023
Planning and designing phase	July 3, 2023 August 1, 2023
Ensure permits are obtained	August 23, 2023 August 23, 2023
Second phase Foundation	August 24, 2023 October 6, 2023
Building Enclosure	August 28, 2023 October 27, 2023
Roofing phase	September 5, 2023 October 9, 2023
Finishing Phase	September 7, 2023 October 16, 2023
Electrical and Pumping	September 29, 2023 November 16, 2023

Landscaping	Decemberr 08, 2023 December 29, 2023
Stakeholders	Direct stakeholders: Jose Salinas Marco Tulio
	Indirect stakeholders: Patients, Clinic Staff
Project Manager Omira Vega	Signature 
Authorized by: Jose Salinas and Marco Tulio	

4.2 Scope Management Plan

Scope Management can be defined as the process of collection that helps in determining and documenting the project's goal, tasks, deliverables, deadlines and budgeting. The scope management plan aids in detailing how the project scope will be defined, developed, and validated. This scope management plan will assign a dictate who is responsible for managing the project's scope and will act as a primary guide for managing and controlling the scope. Project Scope Management helps in practicing to ensure that the project is going to deliver and getting the agreement on it. This process consists in three steps which are:

Planning: In this process the team plans how to approach managing scope and the scope of work is created. In this phase all deliveries of the project are presented, and the team works in creating the work breakdown structure (WBS)

Controlling: In this process the monitoring and controlling of the phases allows the team to verify that scope, deliverables, changes management are properly tracked. Whenever there are any changes in the project it is documented and approved or rejected.

Closing: The scope is audited against the original plan, which is known as the scope baseline, to see how the project has performed.

Project Scope Management also has five important steps which aid in the proper development of this process which are: collect requirements, define scope, create WBS, verify scope, and control scope.

Collect Requirements: The first step in project scope management, this process is responsible for defining and documenting stakeholders needs that are to be met within the project activities. This process is developed in the project planning phase.

Define Scope: In this process the developing of the detailed description of the project and product is done. It is important to carry out the first step which is collecting requirements so that the different requirements of the project and the products/services are properly defined.

Create WBS: During the creation of the work breakdown structure there is a technique called “decomposition.” This is the process of subdividing project deliverables and project activities into smaller and more manageable components.

Verify Scope: In this process the monitoring and control process group takes place. This includes reviewing deliverables with the stakeholders to ensure that the project meets all requirements, while allowing for formal acceptance of the deliverable by the customer.

Control Scope: This is the last process in the project scope management. It is also part of the monitoring and control process group. Control scope monitors the project's status and manages changes to the scope baseline. It also ensures that all changes that were requested and recommended corrective or preventive actions are processed through the integrated control process.

4.2.1 Scope Management Approach

The objective of a scope management plan is to create a project structure for documenting the resources required to achieve the project objective. The idea of the project scope management is to reduce the chance of scope creep, it helps in avoiding common problems which may be a result of constantly requesting for changes.

The project is defined by the scope statement, work breakdown structure (WBS) and WBS dictionary. For the scope management approach, the project team (Project Manager, stakeholders) are responsible for establishing and approving documentation for measuring the scope to identify and verify that the project is in accordance with what has been established. It is important that while proposing any changes throughout the different phases of the project they are submitting to the project manager who will then evaluate the changes that are to be made. Once changes are accepted then the form is submitted to stakeholders, contractors and any other member of the project team who needs to be informed. The project

manager is responsible of approving the scope changes. It is important to note that based on the changes requested cost and time plans are also affected. Once the approval has been completed, the project manager ensures that the project document is updated in accordance with changes made. After the final approval the project manager and stakeholder must take up the responsibility of accepting the project’s final deliverables and project scope.

Roles and Responsibilities

For the Northern Medical Specialty Plaza Clinic expansion, the project manager will have total responsibility for project’s scope management. The project team listed below will undertake assigned scope management responsibilities.

Chart 7 Role and Responsibilities [Source: LBlanco, November 2023]

Roles	Responsibilities
Project Manager	<ol style="list-style-type: none"> 1. Develop project charter 2. Generate and validate project scope. 3. Aid in the request for scope change. 4. Assign a project criterion for the project. 5. Scheduled change control meetings and walk throughs. 6. Provide updates of scope change requests. 7. Generates reports on projects status

	<ol style="list-style-type: none"> 8. Provide updated documentation upon any requests. 9. Track Progress of Project. 10. Communicate on any issues that require a higher level of escalation.
Roles	Responsibilities
Project Sponsor	<ol style="list-style-type: none"> 1. Financing the project 2. Maintain communication with project manager. 3. Track progress of Project. 4. Approve scope changes 5. Evaluate need for scope change requests. 6. Accept important project deliverables.
Central Building Authority Officer	<p>Review architectural Plan</p> <p>Review and Approve documents</p> <p>Provide permit</p>

<p>Project Team Members</p>	<p>Responsible for different tasks and activities that project may entail.</p> <p>Assess the need for scope changes and maintain an open communicate channel with the project manager.</p> <p>Partake in essential determining changes.</p>
<p>Stakeholders & End users</p>	<p>Oversee project's progress.</p> <p>Provide the project brief.</p>

4.2.3 Scope Definition

The scope for this project was defined through a meeting with stakeholder, project team and construction company, where a walk through was schedule with persons mentioned previously in order to evaluate and further plan the execution of the project. Based on the information gathered, the project manager handed over documentations with required procedures (Project management plan and project requirements) of what the project will entail. Thereafter the project's deliverables were designed and generated based on the inputs and outputs of the stakeholder and project team.

Project Scope Statement

The project deliverables and the effort required to produce them are described in depth in the project scope statement.

Product Deliverable and Acceptance Criteria

Chart 8 Acceptance Criteria [Source: L. Blancco September]

Deliverables	Acceptance Criteria
Target date	<ol style="list-style-type: none"> 1. The accuracy of the completion of the work 2. The precision of the schedule starts of implementation 3. Certainty that the project will be completed on the date which was agreed by client and contractor 4. A reduction in unanticipated extra time over-run
Cost	<ol style="list-style-type: none"> 1. Details of used funds 2. Responsible for reporting use of funds 3. The transparency of funds
Quality Level	<ol style="list-style-type: none"> 1. Ability to perform job 2. Work experience 3. Implementation of the methos applied 4. Building reflects the clients' activities and image

Strategic goals and objectives	<ol style="list-style-type: none"> 1. Active participation of project team and stakeholders 2. Provide clear outcomes that have been accomplished 3. Identify Key performance indicators
Deliverables	Acceptance Criteria
Communication	<ol style="list-style-type: none"> 1. Report on scope changes to stakeholders 2. Activity participation of stakeholders 3. Submission of findings 4. Meeting with stakeholders

4.2.4.2 Project Constraints

The project owners have requested that the project should not exceed its four months duration and that no major changes are made to the initial cost of the project.

Project Assumptions

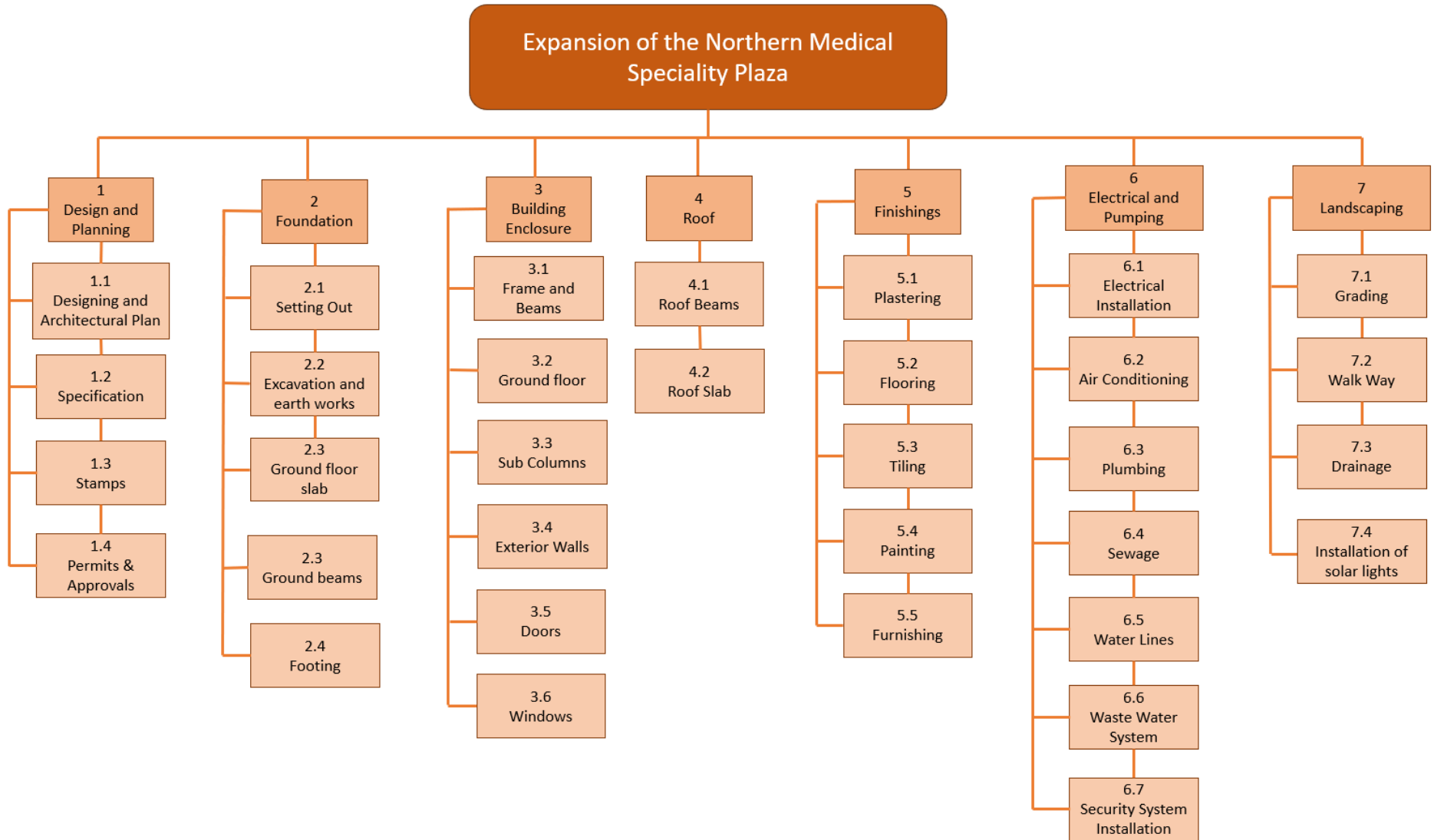
In this project assumption include:

- The duration of the project will not exceed four months.
- Project scope will not be changed on a long-term basis.

Work Breakdown Structure

In order to effectively oversee the tasks necessary to accomplish the project, a work breakdown structure (WBS) is developed. The WBS offers a framework for the deliverables that must be made during the project. The task will be separated into smaller, distinct work packages inside the WBS. Structural sub element that transmits the structure's weight.

Figure 5 Work breakdown Structure [Northern Medical Plaza Cha September 2023]



4.2.6 WBS Dictionary (Source compiled by author)

The WBS Dictionary is a comprehensive list of all the tasks that the project team must do in order for the project to be completed successfully. The WBS code, deliverables, a description of the work, assumptions, restrictions, budgets, and resources needed for each job to be finished are all included. The project team will use the WBS as a work breakdown structure for each WBS element.

Chart 9 Work breakdown Structure [Source: Northern Medical Plaza September 2023]

WBS	Activity	Description	Deliverable	Budget	Resource
1	Design and planning				
1.1	Design and Architectural Plan	Project procedure as to the delivery and contractual agreement. The architectural plans will prove a graphical idea as to how the structure should be	Plan design of building and gather necessary documentation for the permit process	\$5,800.00	

1.2	Specifications	Ideas on how the building should look in terms of design and dimensions.	Get requirement from stakeholders	\$500.00	
1.3	Stamps	To validate the architectural design	Ensure that the plans have the necessary stamps to make them valid	\$750.00	Get the architectural plans
1.4	Permits and Approvals	To have legal authorization to carry out the construction	Have all documents in order	\$250.00	Obtain Architectural plans
2	Foundation				
2.1	Setting out	Carry out measuring, placing pegs and markings prior to construction.	Take measurements and set pegs to mark the areas where the foundation will be	\$3,955.00	

2.2	Excavation and earth work	The initial phases to start construction, removing soil or any other material from the ground in order to prepare for the foundation of the building.	Ensure that measurements are taken, and the clearing of the area is done	\$7,600.00	
2.3	Ground floor Slab	The support system of the building.	Do frame and setting out	\$10,500.00	
2.4	Ground beams	Reinforcement concrete beam for supporting walls, joints	Do the braces for the beams	\$11,200.00	
2.5	Footing	Is to support the foundation and prevent settling	Ensure that the frames are accurately done	\$4,100.00	
3	Building Enclosure				
3.1	Frames and beams	Both are used for support.	Have the beam and frames braces as	\$12,000.00	

			specified of the plan		
3.2	Ground floor	Surface layer brought up to ground floor level with hardcore filling under it		\$41,000.00	
3.3	Sub-columns	Structural component that helps the structure transfer its weight.		\$12,545.00	
3.4	Exterior walls	Forms part of a building envelope, separating the accommodation inside from that outside.		\$30,000.00	
3.5	Doors	Gives access to the inside of a room of a house.	Ensure that the doors are procured and the door frames are installed	\$34,125.00	Obtain quote and purchase windows

3.6	Windows	Provide our homes with light, warmth and beauty	Ensure that the Windows are procured, and window frames are installed	\$7,598.00	Obtain quote and purchase windows
4	Roof				
4.1	Roof beam	Provides support to the roof or floor above, and strengthens your walls, keeping them securely in place to prevent them from spreading out or leaning in.	Facilitate installation of beams	\$8,423.00	
4.2	Roof Slab	Provide a sturdy and durable surface for the roof	Ensure that the frames and braces are ready	\$8,756.00	
5	Finishings				
5.1	Plastering	Protection on walls and ceilings. Smoothing out the	Ensure that the concrete is mixed	\$17,845.00	Obtain the necessary material for

		concrete on walls and ensuring that the walls are not uneven	accordingly, and the plastering is done neatly		the mixing of the cement
5.2	Flooring	Provides safety and functionality of the building but is mostly based on the aesthetics of the building		\$9,125.00	
5.3	Tiling	Provide an aesthetic finishing on the floor	Cut and paste tiles accordingly	\$8,471.00	Procurement of the tiles and grout
5.4	Painting	Provides visual appeal to the walls and building	Obtain requested Paint color and items necessary for painting	\$15,222.00	Stakeholder choice of color and procure the paint
5.5	Furnishing	Provides storage space for the cabinets	Install the furniture	\$16,222.00	Obtain quotes from supplier

6	Electrical and Pumping				
6.1	Electric installation	Provides the building will electricity (Outlets, breaker etc.)	Connect equipment for electrical	\$22,154.00	Quotation from contractor
6.2	Air conditioning	Provide a cooling temperature within the rooms in the building	Installation of AC units.	\$13,500.00	Procure the AC Units
6.3	Plumbing	Provides water access to the building	Connecting of pipes lines for water Access.	\$8,000.00	Procurement of pipes. Pipe glue and cutters
6.4	Sewage	Disposal of human waste		\$17,000.00	
6.5	Water lines	Provide water inside the building after the pumping process is completed.		\$1,450.00	

6.6	Waste water system	Provide control to the disposal of sink, baths wastewater from the building		\$12,200.00	
6.7	Security System Installation	Provide a monitoring system used to project the building	Installation of cameras and configuration of NVR	\$10,000.00	Procurement of Security system
7	Landscaping				
7.1	Grading	Ensuring that the land is level after the construction is finished	Cleaning out and leveling the area	\$9,823.00	
7.2	Walkway	Provides access clean access to the building	Concreting of the walkway area	\$17,500.00	
7.3	Drainage	Provides the proper routing rain wastewater away from the building		\$12,000.00	

7.4	Installation of solar lights	Provide light in areas that are dark in the evenings	Installation of poles and lights	\$5,700.00	Procurement of solar lights
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4.2.7 Validating Scope

One of the most important tools for organizing and overseeing building projects is a work breakdown structure (WBS). It assists you in dividing the project's scope into doable assignments, products, and assets. The process of ensuring that your work breakdown structure (WBS) satisfies the requirements for a high-quality WBS, including reciprocal exclusivity of tasks, logical and hierarchical organization, clear and measurable outputs, and alignment with the project scope, is known as WBS verification. It is important to know that the scope can change as the project goes along but requests need to be made in order for it to be approved. One of the key elements of making change is communication as it could greatly affect the project progress.

4.2.8 Validating Scope

The project team completes the tasks assigned to them in order to finish the project's deliverables and scope. The client reviews the deliverables as soon as they are completed. Once the client has approved a deliverable using the validate scope process, it is considered accepted. Ensuring formal client approval of the product is the purpose of the process. Increased objectivity and the possibility that the finished work will succeed are the main advantages of the procedure. The project manager must check the list as soon as the

evaluation findings are received to make sure all deliverables satisfy project requirements and that any necessary adjustments are made.

4.3 Schedule Management Plan

Within the project management plan one of the key elements is the Schedule Management Plan, a Schedule Management Plan describes how the schedule will be managed throughout the project lifecycle. This plan helps the project management team to make well-informed decisions and steer the project toward a successful outcome with the help of an approved schedule management plan. Project managers aim to produce high-quality outputs on schedule and within budget. Therefore, it is not a successful outcome if deliverables are completed days, months, or years after the scheduled deadline. Project managers are better able to handle schedule threats and guarantee desired outcomes, such as the project's completion date, when they have a solid schedule management plan tailored to the project's demands.

4.3.1 Schedule Management Approach

Microsoft Project 2019 will be used to create project schedules. The particular task packages needed to finish each deliverable will be identified by the activity description. Work package ordering and assigning linkages between project tasks will be done through activity on the WBS. The amount of work time needed to finish work packages will also be determined using activity duration estimation. The final step in completing schedule planning is to assign resources to task packages using resource estimates.

Upon developing a preliminary schedule, the project manager and assistant project manager will carefully analyze the allocated tasks and make any necessary adjustments. On the suggested task package assignments, durations, and timetable, the project team and resources must concur. Following this accomplishment, the project. The project manager and assistant project manager will carefully analyze the assigned project tasks after an initial schedule has been prepared. The suggested work package assignments, durations, and timetable need to be approved by the project team and resources.

4.3.2 Activity Listing

The WBS plays a vital role in creating the Schedule management plan as it provides the list of activities that will be carried out during the 182 days of project duration. This will help the project team to have a timely estimation of the activities involved and the monitoring of the lifecycle of the project as it can be measured in days and months. Figure illustrates the activities for the project.

Figure 6 Work Breakdown Structure [Source: L.Blanco, October 2023]



Figure 6 Activity list for the Northern Medical Specialty Plaza Clinic Expansion (Source compiled by author)

4.3.3 Reserve analysis (Justification)

There is no doubt that risks will arise during the different phases of the buildings construction; these risks might either be beneficial or negative in character. Causing project's timeline and budget to be impacted by these risks. The three main components of reserve analysis are risk, risk cost, and resources required to manage those risks. Reserve analysis is crucial because it enables the project management team to monitor how the reserves are being used and assess based on the phase the project is at. By this, it is important that the risk management strategy be implemented.

4.3.4 Project Schedule and Critical Path

Project schedule a crucial for the development of a project, it aids in illustrating the different activities that the project must go through in order to be successfully completed. The project schedule helps to illustrate how each activity is inter-related and how it can affect if the related activity of the project is not fully completed. The project team focused on two primary factors, the project schedule and the critical path of the project. It is important to monitor closely the critical paths of the project as it can cause delays in the project and affect the projects. The figure below illustrates the critical paths are illustrated for the different activities of the Northern Medical Specialty Plaza Clinic expansion.

Figure 7 Illustrates the Critical Path for the activities of the Northern Medical Specialty Plaza Clinic Expansion [Source: L. Blanco, December 2023]



Illustrates the Critical Path for the activities of the Northern Medical Specialty Plaza Clinic Expansion

4.3.5 Schedule Control Procedure

The practice of tracking project activity statuses to update project progress and manage schedule baseline modifications in order to meet the plan is known as a control schedule, according to PMI (2017). In order to keep the progress of the project monitored a schedule control process was created to make sure that everything is going according to plan. This method will be used to keep an eye on the project's progress, update various procedures, and handle modifications that come up while the dwelling building is being built. The reason the schedule control technique is vital is that it enables the project manager to identify deviations from the plan, limit risks, and take corrective and preventive action.

4.4 Cost Management Plan

The Cost Management Plan is a document which sets out how the project costs will be estimated, tracked, monitored, reported and controlled. It forms part of the Project Management Plan and supplies information to the Activity Cost Estimates, Cost Baseline and risk register PMBOK Sixth Edition (2017). Throughout a project's life cycle, the cost management function never wavers in its critical importance. Among all the factors contributing to a project's success, cost control is the most crucial since it influences every other component of the project. For the owner, the "bottom line" is what matters.

4.4.1 Process Description and Importance

Cost management plans have an important role in the development of a project, it is a method of strategizing the planning and execution of the project's budget. Moreover, it helps in splitting the function into four steps: resource planning, estimation and control. This process aids greatly in providing guidance on the project's cost which also directly illustrates the project success by ensuring that the budget is kept.

4.4.3 Tools and techniques to be used on the cost management plan

Tools and techniques are methods used to accomplish and carry out tasks. The Northern Medical Specialty Plaza Clinic Expansion project identified and used the following tools and techniques on the cost management plan.

Data Analysis: Data analysis is used for the purpose of making wise decisions regarding project deliverables. It is important to make the right analysis in order to make a decision. For this project managers should obtain past information and do an analysis of the current data. Project managers can use this information to judge the project's performance and determine whether it is on track to be completed on schedule or if any delays may occur. **Reserve Analysis** is a further method that is employed throughout the project to produce high-quality project deliverables. It will be determined whether the reserves should still be used by using this to track the project's contingency and management reserves.

Expert Judgement: Throughout the project it is important to consult with persons who have had experience working in similar project. This will help the team members to make more

precise decisions and obtain a better understanding as to how they can solve issues that may raise during the different phases of the project. Seeking advice will help the project team to create a more accurate cost estimate and plan for the project.

4.4.4 Activity Cost Estimates

4.4.4.1 Process Description Importance

Activity cost estimation is a crucial component of project management because it reduces cost unpredictability by aggregating project costs down to the activity level, the lowest possible level.

In cost estimation one of the methods to apply is the quantitative method. This technique is used for evaluating and projecting the potential expenses related to finishing each task in the project. This includes all expenses related to the resources and costs of labor, materials, equipment, services, and other factors that can be classified as direct or indirect costs for an activity. In order to complete the cost estimation a list of the project's activities were used. All of the activities that were pertinent to each project work package were enumerated, and their associated costs were calculated.

4.4.4.2 Activity Cost estimation for each calculation

Figure 8 Cost estimation for each calculation [Source: L. Blanco, December 2023]

Deliverable	No.	Description	Cost	Percentage	Contingency	Total budget
Design and Planning	1.1	Design and Architectural Plans	\$ 5,800.00	4%	\$ 232.00	\$ 6,032.00
	1.2	Specification	\$ 500.00		\$ 20.00	\$ 520.00
	1.3	Stamps	\$ 750.00		\$ 30.00	\$ 780.00
	1.4	Permits	\$ 250.00		\$ 10.00	\$ 260.00
		Subtotal	\$ 7,300.00		\$ 292.00	\$ 7,592.00
Foundation	2.1	Setting out	\$ 3,955.00	6%	\$ 237.30	\$ 4,192.30
	2.2	Excavation and earthworks	\$ 7,600.00		\$ 456.00	\$ 8,056.00
	2.3	Ground floor Slab	\$ 10,500.00		\$ 630.00	\$ 11,130.00
	2.4	Ground beam	\$ 11,200.00		\$ 500.00	\$ 11,700.00
	2.5	Footing	\$ 4,100.00		\$ 246.00	\$ 4,346.00
		Subtotal	\$ 37,355.00		\$ 2,069.30	\$ 39,424.30
Building Enclosure	3.1	Frames and beames	\$ 12,000.00	12%	\$ 1,440.00	\$ 13,440.00
	3.2	Ground floor	\$ 41,000.00		\$ 4,920.00	\$ 45,920.00
	3.3	sub columns	\$ 12,545.00		\$ 1,505.40	\$ 14,050.40
	3.4	Exterior walls	\$ 34,125.00		\$ 4,095.00	\$ 38,220.00
	3.5	Doors	\$ 22,600.00		\$ 2,712.00	\$ 25,312.00
	3.6	Windows	\$ 7,598.00		\$ 911.76	\$ 8,509.76
		Subtotal	\$ 129,868.00		\$ 15,584.16	\$ 145,452.16
Roofing	4.1	Roof Beams	\$ 8,423.00	5%	\$ 421.15	\$ 8,844.15
	4.2	Roof Slab	\$ 8,756.00		\$ 437.80	\$ 9,193.80
		Subtotal	\$ 17,179.00		\$ 858.95	\$ 18,037.95
Finishing	5.1	Plastering	\$ 17,845.00	6%	\$ 1,070.70	\$ 18,915.70
	5.2	Flooring	\$ 9,125.00		\$ 547.50	\$ 9,672.50
	5.3	Tiling	\$ 8,471.00		\$ 508.26	\$ 8,979.26
	5.4	Painting	\$ 16,222.00		\$ 973.32	\$ 17,195.32
	5.5	Furniture	\$ 22,000.00		\$ 1,320.00	\$ 23,320.00
		Subtotal	\$ 73,663.00		\$ 4,419.78	\$ 78,082.78
Electrical and Pumping	6.1	Electric installation	\$ 22,154.00	12%	\$ 2,658.48	\$ 24,812.60
	6.2	Air Conditioning	\$ 13,500.00		\$ 1,620.00	\$ 15,120.00
	6.3	Plumbing	\$ 8,412.00		\$ 1,009.44	\$ 9,421.44
	6.5	Sewage	\$ 17,000.00		\$ 2,040.00	\$ 19,040.00
	6.6	Water Lines	\$ 1,450.00		\$ 174.00	\$ 1,624.00
	6.7	Waste water system	\$ 12,200.00		\$ 1,464.00	\$ 13,664.00
	6.8	Security System Installation	\$ 10,000.00		\$ 1,200.00	\$ 11,200.00
7	Subtotal	\$ 84,716.00		\$ 10,165.92	\$ 94,882.04	
Landscaping	7.1	Grading	\$ 9,823.00	2%	\$ 196.46	\$ 10,019.46
	7.2	Walkway	\$ 17,500.00		\$ 350.00	\$ 17,850.00
	7.3	Drainage	\$ 12,000.00		\$ 240.00	\$ 12,240.00
	7.4	Installation of solar lights	\$ 5,700.00		\$ 225.00	\$ 5,925.00
		Subtotal	\$ 45,023.00		\$ 786.46	\$ 45,809.46
		Total	\$ 377,925.00		\$ 33,317.62	\$ 411,242.74
Contingency for Management 6%						\$ 24,674.56
Project Total						\$ 435,917.30

4.4.5 Project Budget

4.4.5.1 Process description and importance

Project budget is a crucial tool for project managers to monitor and ascertain the cost associated with each activity as specified in the Work Breakdown Structure (WBS).

It is important that projects have a budget this will give the project team an idea as how to balance off cost on the different activities of the project. This provides accountability and ensure that the project team is being used accordingly. It is imperative that the cost estimate utilized to establish the budget is as precise as feasible, incorporating the necessary contingency reserves to ensure the project's successful completion. Both managing the project budget after it has been set and maintaining accuracy during the budget planning stage are crucial.

4.4.5.1 Project Budget including Main activities names, cost total, contingency and management reserve.

Figure 9 Project Budget including activity name [Source: L. Blanco, December 2023]

Deliverable	No.	Description	Percentage	Contingency	Total budget
Design and Planning	1.0	\$ 5,800.00	4%	\$ 292.00	\$ 7,592.00
Foundation	2.0	\$ 37,355.00	6%	\$ 2,069.30	\$ 39,424.30
Building Enclosure	3.0	\$129,868.00	12%	\$ 15,584.16	\$ 145,452.16
Roofing	4.0	\$ 17,179.00	5%	\$ 858.95	\$ 18,037.95
Finishing	5.0	\$ 73,663.00	6%	\$ 4,419.78	\$ 78,082.78
Electrical and Pumping	6.0	\$ 84,716.00	12%	\$ 10,165.92	\$ 94,882.04
Landscaping	7.0	\$ 45,023.00	2%	\$ 786.46	\$ 45,809.46
		\$376,425.00		\$ 33,317.62	\$ 411,242.74
Contingency for Management 6%					\$ 24,674.56
Project Total					\$ 435,917.30

4.4.5.2 Contingency Reserve

The contingency reserve is the amount of money that is set aside in the budget to cover unexpected costs during the project. In the table below information of the different project activities are presented with a brief description explaining the contingency justification and its percentage.

Chart 10. Budget Chart [Source: L. Blanco, December 2023]

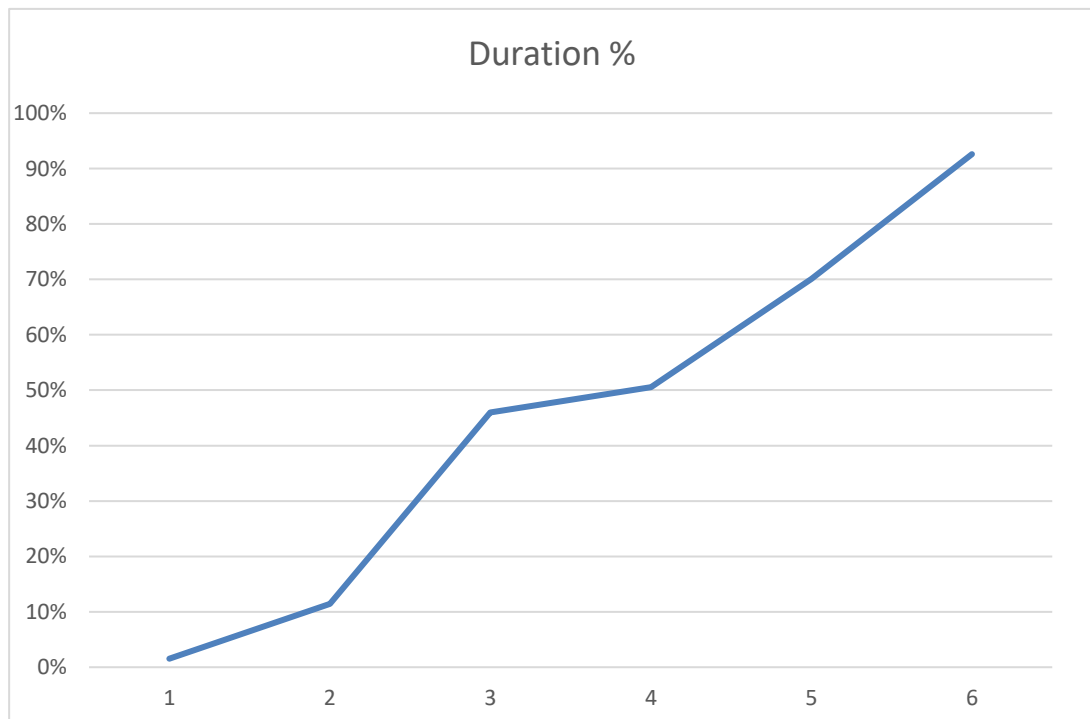
Deliverable	Percentage	Description
Design and Planning	4%	For this work package four percent of contingency was applied to the work package in case there are any changes that need to be done to the on the building plan or to expedite the process of stamps and permits
Foundation	6%	For this work package a 5 percent of contingency was applied to the work package in case any changes are made to the plan a the size of the structure is increased
Building Enclosure	12%	For this work package a twelve percent of contingency assigned to the work package was applied in case any changes window, door or structure of walls are modified
Roofing	5%	Roofing has a contingency of five percent assigned to the work package, this is incase the material for the roofing is out district
Finishing	6%	Finishing has a contingency of six percent assigned to the work package, finishing in most case is where the customers tend to make more changes when it comes to the furniture and other item
Electrical and Pumping	12%	Electrical has a contingency of twelve percent assigned to the work package, since the amount of outlet, pipe line may increased based on the customers request
Landscaping	2%	Landscaping has a contingency of two percent assigned to the work package incase the assigned amount is insufficient

4.4.5.3 Management Reserve

The management reserve is the amount of project budget that is reserved for unforeseen work that is within the scope of the project. In the cost management plan the project manager adds the management reserve to the baseline which results in the total budget of the project's budget. In the cost management plan of the Norther Medical Specialty Plaza clinic expansion project a reserve management of six percent (\$ 24,674.56), this amount that has been Budget will be retained by the owners of the Project.

4.4.6 Graph representing the Project "S" curve

Figure 10 S Curve [Source: L. Blanco, December 2023]



Graph below illustrates data presented on the graph

Figure 11 S Curve details [Source: L. Blanco, December 2023]

Phase	Baseline	% Weight	Start	End	Duration	1 Month	2 Month	3 Month	4 Month	5 Month	6 Month	6 Month
Design and Planning	\$ 5,800.00	1.54%	Month 1	Month 1	1	2%						
Foundation	\$ 37,355.00	9.92%	Month 2	Month 2	1		10%					
Building Enclosure	\$ 129,868.00	34.50%	Month 3	Month 3	1			35%				
Roofing	\$ 17,179.00	4.56%	Month 4	Month 4	1				5%			
Finishing	\$ 73,663.00	19.57%	Month 5	Month 5	1					20%		
Electrical and Pumping	\$ 84,716.00	22.51%	Month 5	Month 5	1						23%	
Landscaping	\$ 45,023.00	11.96%	Month 6	Month 6	1							12%
	\$ 376,425.00				% Complete	2%	10%	35%	5%	20%	23%	12%
					Cumulative %	2%	11%	46%	51%	70%	93%	105%

4.4.7 Cost Control Procedure

Maintaining budgetary control and cost management are critical tasks for the project team. Control costs, according to PMI (2013), are the results of managing modifications to the cost baseline and keeping an eye on the project's progress in order to update the project costs. Project managers are responsible for monitoring any deviations in project spending from predetermined benchmarks and implementing necessary corrective measures as needed. The project manager for the Northern Medical Specialty Plaza clinic expansion will keep track of the project's actual cost in order to keep costs under control. In order to maintain the cost baseline, he must also oversee the use of cost monitoring software and look into any discrepancies in costs.

4.4.8 Earned Value Management

Earned value management (EVM) is a methodology that integrates scope, schedule, and resource measurements to evaluate project performance and progress, according to the Project Management Institute (2013). With the use of this technique, the project manager will be able to gauge how much work has been completed at

the NMSP project in addition to the standard examination of budget and schedule data. The budgeted value of the work scheduled, the earned value of the physical work completed, and the actual value of the work completed will all be compared using three different data sources in this method. The approved budget allotted to the planned work is known as planned value, or PV. It is the approved spending amount scheduled to complete the tasks associated with a given activity.

4.4.9 Cost Change Management process description

The cost management is the process of identifying, analyzing, approving and implementing changes that affect the project's cost. During the different phases of the project the budget may be affected by any activity that was not initially listed in the original plan. The project team will use a formal change management procedure to ensure cost modifications are carefully considered. Stakeholders, including the lead contractor, will review changes through the Perform Integrated Change Control process. The revised budget will reflect the project management plan, preventing budget inflation and reducing unnecessary adjustments.

4.5 Quality Management Plan

Quality management plan is a document that guides the project manager and the project team to execute quality management, quality assurance and ensuring the project's requirements meet the customer's needs (Malsam, 2022)

A quality management plan, outlines the actions you will take throughout the project's life cycle to meet its quality objectives, will be included in the overall project plan. These tasks (as well as the tools required to carry them out) are also covered in the quality management plan.

4.5.4 Quality Plan

One of the key importance of the quality plan is that it helps in reducing cost, it provides the project manager with specific instructions on what the clients requires and the standards they must meet throughout the project's lifecycle, and it focuses on ensuring that the finance is only dedicated to items that matter to the clients.

This plan ensures that the project management activities are carried out smoothly, by making sure that the plan has the details about the deliverable, acceptable standards, and quality controls. The projects quality is managed and monitored through the use of tools and techniques which help to ensure that standards are being kept and involve the deliverables listed.

Meetings: It is important to carry out meetings with the project team member, stakeholder and other personnel who is involved in the project so that there is a proper communication channel, and everyone is at the same pace.

Benchmarking: It is necessary to compare the process and performance of relevant project in order to compare quality, time and cost.

Quality Checklist:

4.5.4.1 Roles and responsibilities Chart (Relating to quality activities)

Chart 11 Roles and Responsibilities [Source: L. Blanco, December 2023]

Roles	Responsibilities
Doctors of Northern Medical Plaza Stakeholders	Financial sponsors (Clients) of the project
Omira Vega Project Manager	Responsible for planning and organizing the activities on the project and leading team through changes if any.
Darvin Blanco Project Engineer	In charge of overseeing that the project plan is being followed and is present to assess setting out before and after casting
HB Construction Construction Company	Company with the contract for the construction of the building

4.5.5 Quality Management

It is important for the project manager and project team to conduct assessments on the quality of the project throughout its lifecycle, in order to determine if the project's objectives are being met. It is necessary to involve the stakeholder in this planning because it is important to inform the stakeholders of any low-quality incident and the actions that will be needed to correct the issue. This plan entails identifying the key factors related to quality and metrics and quality baseline.

4.5.5.1 Key Factors related to Quality

Chart 12 Key Factors related to quality [Source: L. Blanco, December 2023]

Factor	Factor Definition
Quality Control	In the case of this project is factor is used to measure the product and service being presented by the company ensuring that it meets the standard of the project.
Budget	Finances used for the procurement of the material.
Operations	Activities carried listed in the different work packages.
Time	It is important to go by the schedule time and ensure that the activities meet their deadlines

4.5.5.2 Metrics and quality baseline

Metrics are used as inputs for quality assurance, which verifies that processes can meet quality standards, and quality control, which compares results to metrics to ensure compliance and determine whether corrective action is required. The information from stakeholders and the project specifications, along with their order of importance, serve as inputs for the creation of metrics. Another factor to take into account is risks.

Chart 13 Metric quality baseline [Source: L. Blanco, December 2023]

Quality Objective	Metric	Metric definition	Expected outcome/result	Measurement frequency	Responsible
Quality	Client's requirements	Ensure that the overall quality of the building is eligible and meets the standards	Focus on conducting meeting and review the different work packages	Weekly Review the WBS and ensure that the number of activities that have been completed are recorded on the software used to create the Schedule as it provides a percentage of the project activity completed.	Sub-contractor and Project manager

Quality Objective	Metric	Metric definition	Expected outcome/result	Measurement frequency	Responsible
Effectiveness	This is based on the requirements of the desired results	Improve and ensure that quality is maintained throughout the WBS especially in the finishing phase	Improve of the masonry works	Measured based on the inspection of on the walk-through this will be measure based on the legend -Low -Medium -High	Project manager and Engineer
Commitment	Focus on meeting deadlines	Set and commit to the defined time frame	Do daily reviews on the Schedule plan	This will be measure on activity durability as specified on the schedule plan	Project Manager and Contractor

4.5.6 Quality Control

It is important that the project team controls quality and is able to implement different strategies in order to maintain the quality. The following measures are to be taken by the project team to ensure that they have quality control:

- Prepare reports to ensure that the different work packages in the scope of work are being completed accordingly. These reports are to be reviewed by stakeholder and project teams during the meetings
- Ensure that the cost and schedule plans are monitored, after the completion of the different phases. Based on the results, the project will decide if the cost or schedule of the activities may need corrective action.
- Implement quality control measures to ensure that persons responsible for the different activities are held responsible for their tasks and are producing in accordance with the standards.

4.6. Risk Management Plan

A risk management plan helps the project team to identify, assess and mitigate risks. In order to ensure that the project is completed within schedule and budget. In order for the project team to be identify issues and threats that can be presented during the lifecycle of the project, a risk register was created.

4.6.1 Risk Identification

Identifying any issues or threats that may affect the project is necessary so that the project can prepare and know how to mitigate the risk.

Chart 14 All source of project risks [Source: L. Blanco, December 2023]

All sources of Project Risks	
Project Management	<ul style="list-style-type: none"> Planning Controlling Monitoring Estimating
External Risks	<ul style="list-style-type: none"> Weather/ Environment Delay on architectural drawings Delay on permits Delay on financing Change in material prices
Organizational Risk	<ul style="list-style-type: none"> Change in management Stakeholder management
Stakeholders	<ul style="list-style-type: none"> Conflicts Approval Protocols
Technical	<ul style="list-style-type: none"> Requirement specification Estimates, constraints, and assumptions Work performance and output Prioritization of project deliverable Interruption of water Operations

4.6.2 Risk Analysis

Determining the probability and impact of the project risks is essential to getting the most out of the risk analysis. The project has a four hundred and thirty-five thousand nine hundred and seventeen with thirty cents total budget and a six-month estimated execution time.

Chart 15 Probability and Impact Scale [Source: L. Blanco, January 2024]

Scale/Project Objectives	Very Low	Low	Moderate	High	Very high
	1-10%	11-30%	31-50%	51-70%	71-100%
Cost	Insignificant cost increase	\$ 85,000	\$ 100,000 – \$115,000	\$ 120,00 – \$135,000	> \$ 190,00
Schedule	Insignificant time increase	< 1,10 days	11 - 16 days	17-20 days	> 21 days
Scope	Insignificant scope reduction	Small changes done to the scopes	More than 20% of modification on scope	More than 50% of changes done on scope	Complete changes on the project scope
Quality	Imperceptible quality reduction	Slight quality reduction	Requires stakeholders' approval	Quality goes way below customers' requirements	Project is defective

4.6.3 Probability and Impact Matrix

The Impact Matrix is a crucial tool for project risk management since it helps stakeholders and the project manager recognize, evaluate, and effectively handle possible risks. By assessing the probability and consequence of every risk event, the matrix offers a thorough grasp of the project's risk environment. The matrix helps in identifying high risk events that could cause a great impact to the success, by properly identifying these risks, the probabilities and the impact which then are classified based on their level of impact.

Chart 16 Probability and Impact Matrix [Source: L. Blanco, January 2024]

Risk Assessment								
		Inherent Risk (without controls)			Residual Risk (with Controls)			
RBS Code	Risk Description	Probability	Impact	Risk Rating	Controls	Probability	Impact	Risk Rating
2.2	Delay in the architectural drawing and permits	Medium	High	Severe	Submit a draft drawing plan to the stakeholder for approval Prepare and make necessary arrangements to have the permits ready for expected time.	Medium	Medium	Moderate
1.4	Increase in budget expenditure	Medium	High	Severe	Develop a detailed and accurate budget. Ensure an analysis is done of the expenses being done. Have contingency plans in place.	Low	Low	Sustainable

RBS Code	Risk Description	Probability	Impact	Risk Rating	Controls	Probability	Impact	Risk Rating
5.4	Project deliverable delays	Medium	High	Severe	Emphasize of projects timeline, do weekly reviews of activities and dates of the project	Medium	Medium	Moderate
2.1	Delay on construction works due to weather	High	Medium	Severe	Do constant monitoring on the weather that may cause an impact to the project Create contingency time into the project schedule.	Low	Medium	Moderate
2.1	Environment unforeseen issues	Low	High	Severe	Carry out an inspection on the area ensure that the surrounding has the adequate requirements	Low	Medium	Moderate

5.5	Interruption of water and electricity	Medium	very low	Sustainable	Ensure that you have generators and keep water container to ensure you have a backup plan should in case utilities are interrupted	Low	Low	Sustainable
5.6	Damage to existing structures	Low	High	Severe	Perform structural assessment before the renovation works and take safety measures.	Medium	Medium	Moderate

RBS Code	Risk Description	Probability	Impact	Risk Rating	Controls	Probability	Impact	Risk Rating
2.5	Change in material prices	Low	Medium	Moderate	<p>Create a relation with supplier in order to constantly get an updated list of the material prices</p> <p>Ensure that the exact price is not added submit (but make a note as to why the actual price is not being included)</p>	Low	Low	Sustainable

Risk Matrix for Project

Chart 17 Probability and Impact Matrix [Source: L. Blanco, January 2024]

Impact:		Very Low	Low	Medium	High	Very High
probability	very high	moderate	Severe	severe	critical	critical
	High	sustainable	moderate	severe	critical	critical
	Medium	sustainable	moderate	moderate	severe	critical
	low	sustainable	sustainable	moderate	severe	critical
	very low	sustainable	sustainable	sustainable	moderate	severe

Chart 18 Probability and Impact Matrix [Source: L. Blanco January 2024]

Impact:		0.1	0.2	0.3	0.5	0.6
probability	0.6	0.07	0.15	0.21	0.35	0.49
	0.5	0.05	0.1	0.15	0.28	0.35
	0.3	0.04	0.06	0.09	0.15	0.20
	0.2	0.02	0.03	0.06	0.1	0.24
	0.1	0.01	0.02	0.03	0.06	0.07

The impact matrix helps the project manager and stakeholder to identify, evaluate and discuss the risks effectively. Based on their finds the risk matrix aid in the proper creation of a plan which will help in identifying the necessary resources and take other measure that will assist in addressing the risks

4.6.4 Risk Monitoring Control

Risks will be observed and managed during the project's entire duration. Ensuring that every risk found within the project is given the proper strategy to address the risk. The manager will be responsible of ensuring that the project risk is properly looked into and solutions are implemented based on the information obtained.

4.7. Procurement Management Plan

Procurement is known as the activity of obtaining physical elements of the project in order to meet the project goals. In the planning phase, it is important to identify the procurement needs of the project. It is necessary to create a plan to determine what material needs to be procured and if it will be purchased locally or abroad.

4.7.1 Procurement Plan

Procurement planning is the process of identifying and consolidating requirements and determining the timeframes for their procurement with the aim of having them as and when they are required. The procurement plan for the Northern Medical Specialty Plaza Clinic

expansion is being created by the project manager along with the stakeholders. The stakeholder at taking part in this planning because their input is very important as they are the ones who will be deciding the type of doors Windows and other material that will be needed for the building. The project manager is then responsible for looking out for the materials based on the stakeholders' requirements.

4.7.3 Procurement Definition

The items/materials listed below have been recorded as the necessary material.

Chart 19 List of Material for Procurement Plan [Source: L. Blanco, January 2024]

Items	Justification	Due Date
Maya cement	Is necessary for the casting of the foundation, walkway, pasting of blocks and plastering	August 21, 2023
Reinforcement bars	needed for the foundation	August 21, 2023
Blocks	Need for the construction of the walls	August 28, 2023
Doors	Enclosing the building and giving access to go in and out of the building	August 28, 2023
Windows	Provides light and air inside the building	August 28, 2023
Electrical Material	Provide electrical outlets, light, air conditioning and gives power to any devices	November 5, 2023
Air Conditioners	Provide with cooling temperature inside the building	November 10, 2023
Pipes	Used for the pumping and wastewater channels	November 12, 2023
Security Cameras	Used for security purposes, to monitor the surrounding	December 6, 2023

Listed items above the only persons authorized to approve purchase are:

Project Manager: Omir Vega

Sponsors: Marco Tulio, Jose Salinas

4.7.4 Procurement Risk

Procurement risk may arise if there are any delays on foreign orders, based on the information gather the project manager is ensure that the customers requirement is obtained locally, the only risk present may be the duration on the delivery. Based on the listing, all items were scheduled to arrive 2-5 days before the activity commences.

4.7.5 Cost Determination

For the procurement of the material, project manager is to request for quotes in order to obtain the price of material. Quotes will have a validity of 30 days after the 30 days if and increase occurs the vendor will update quote if the material has not been procured.

4.8 Stakeholder Management Plan

Stakeholder management plan is a document that outlines how the project team plans on managing the goals and expectation of the stakeholder's during the project's lifecycle. Stakeholders are those who have a stake or an interest in project. This plan involves systematically identifying stakeholders; analyzing their needs and expectations; and planning and implementing various tasks to engage with them (Vogwell, 2023).

The project team will be able to better analyze and manage requirements from the stakeholders, plan strategies to engage them, and evaluate and control the influence and impact of stakeholders on the project's success with the support of these processes. There are internal and external stakeholders involved in this project, and their participation is crucial to its success. These parties are included in all of the management plans and are identified at the beginning of the project. As a result, the stakeholder management plan for this project will guarantee that all pertinent stakeholders are appropriately identified, characterized, and included in project activities and executive processes throughout the project lifetime. The stakeholder management plan will aid by the implementation of tools and techniques like expert judgment and meetings.

4.8.1 Identifying Stakeholders

One of the key importance of having an effective stakeholder management plan is to identify and analyze the stakeholder's information in order to get a clear their interest within the project. This will give the project team an idea as to what the stakeholders involvement, influence and potential impact may be in the project's life cycle.

Stakeholders Identification

Chart 20 Identifying Stakeholders [Source: L. Blanco, January 2024]

Roles	Functional Area	Responsibilities
Stakeholders	Client/Financial Sponsors	Financial sponsors (Clients) of the project
Project Manager	Project Management	Responsible for planning and organizing the activities on the project and leading team through changes if any.
Project Engineer	Project Expert	In charge of overseeing the that the projects plan is being followed and the is present to assess setting out before and after casting
Construction Company	Project Contractor	Company with the contract for the construction of the building
Project Team	Project Support	Is the support team for the different activities of the project

Roles	Functional Area	Responsibilities
Permit Officers	Central Building Authorities	In charged of reviewing/approving the architectural plan and granting the permit for the construction to commence.
Clinic Staff	End Users	Provide feedback on the building after the have setup their workspace
Patients	End Users	Provide feel back/ complaint on the project building

Chart 21 Stakeholder [Source: L. Blanco, January 2024]

ID	Roles	Functional Area	Responsibilities	Main Expectations	Major Requirement	Influence	Impact
1	Stakeholders	Client/Financial Sponsors	Financial sponsors (Clients) of the project	Successful completion of the project (No delays and not going over budget)	Not going above budget	High	High
2	Project Manager	Project Management	Responsible for planning and organizing the activities on the project and leading team through changes if any.	Ensure that the clients' needs are met and that the project is maintained within schedule and budget	A successful project. With no delays and no cost over-run	High	High
3	Project Engineer	Project Expert	In charge of overseeing the that the projects plan is being followed and the is present to assess setting out before and after casting	Ensure that the project details are followed in order to ensure good quality	Project is successfully completed in order to meet clients' requirements	High	High

ID	Roles	Functional Area	Responsibilities	Main Expectations	Major Requirement	Influence	Impact
4	Construction Company	Project Contractor	Company with the contract for the construction of the building	Ensure that the time and cost is maintained. Along with good quality	Successful project completion	High	High
5	Project Team	Project Support	Is the support team for the different activities of the project	Ensure that the activities are completed successfully	Successful completion of the project	High	Medium
6	Clinic Staff	End Users	Provide feedback on the building after they have setup their work space	Provide relevant information and feedback on the project building	Advise on any issues or recommendation	Low	Medium
7	Patients	End Users	Provide feedback/complaint on the project building	Provide feedback on the project building	Provide creative criticism on how to improve deliverable	Low	Medium

4.8.2 Stakeholder Analysis

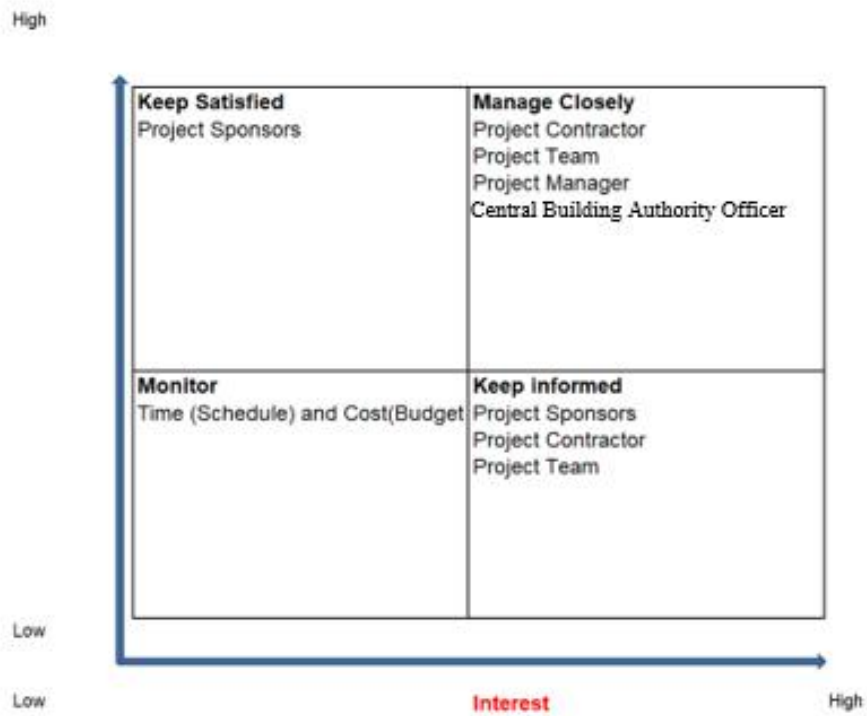
Stakeholder analysis was a technique used to identify and understand the expectations or interests of the project. It helps in planning the project's strategically when aware of the characteristics, connections, and interfaces between supporters and opponents of the project. This is where a lot of our project's risk and viability are found, as well as the support that we eventually need to successfully get and keep.

The table below illustrates the influence and impact that each stakeholder adds to the project. It is important to analyze the functional area of the stakeholder as it helps to identify their key role in the project's life cycle.

Chart 22 Power Interest Matrix Source [Source L. Blanco, January 2024]

ID	Roles	Influence	Impact
1	Stakeholders	High	High
2	Project Manager	High	High
3	Project Engineer	High	High
4	Construction Company	High	High
5	Project Team	High	Medium
6	Central Building Authority Officer	High	High
7	Clinic Staff	Low	Medium
8	Patients	Low	Medium

Figure 12 Power/Interest Grid for Stakeholder Analysis



4.8.3 Plan Stakeholder Management

The main object of the plan stakeholder management is to have an open channel of communication with the stakeholders in order to identify and analyze the interest, impact, needs and expectation of the stakeholders. It is necessary to maintain good communication with the stakeholders in order to provide constant updates and obtain the necessary feedback for the stakeholders' side. It is always a good idea to implement tools that will aid in the successful development of the plans. Tools such as expert judgement help in identifying and analyzing better ways in which the team can have continuous stakeholder engagement.

4.8.4 Manage Stakeholder Engagement

Engaging with the stakeholder helps in building up a proper communication channel. Through the engagement one can obtain the necessary information as to what the requirements and expectations are. Stakeholders must be identified, mapped out, and prioritized in order to decide on the most efficient communication strategies and make the most use of the resources at hand. This type of interaction contributes to building up trust, confidence which is a key initiative for a successful project.

Activities that involve Management Stakeholder Engagement:

- Ensure commitment of stakeholder throughout the project's lifecycle.
- Anticipate future complications and address potential concerns throughout the life cycle of the project.

- Ensure expectations are met.

4.8.5 Monitor Stakeholder Engagement

The process of maintaining a relationship between project stakeholders and making necessary changes to strategies and plans for stakeholder engagement is necessary in order to collect the necessary information that is required for the project wellbeing. By doing the information can assist in the proper engagement of stakeholders. The project will ask for general contribution in the gathering and justification of requirements, as outlined in the scope management plan. This will help identify problems and concerns early on so they can be fixed. In order for a project to succeed, stakeholders are essential. Throughout the project lifecycle, the project team has planned to involve, engage, and listen to all key stakeholders.

4.9 Sustainable Management Plan

Sustainability plays a critical organizational focus, project managers have worked on their projects without fully understanding the impact they may cause to the environment as a result of not making the right decision, causing them to be disconnected from organizational strategy, governance, and the larger community. Making the right decisions for projects, businesses, and society at large is made easier for project managers and teams when they place project management in the appropriate strategic context (Tharp, 2012).

In addition to managing resources, project managers must be socially and environmentally responsible as well as financially sustainable in terms of time and money management. But

sustainability is more than just being environmentally conscious and "green." We must also assess the risks associated with human rights, fair business practices, labor practices, and consumer issues. Discover how to incorporate sustainability into your own project management procedures and steer your business in that direction.

During the lifecycle of the project the P5 tool will be implemented, by adding the triple bottom line of People, Planet, and Prosperity and enhancing it with Product and Process considerations, the P5 Standard goes beyond traditional project management. This all-encompassing method guarantees that each stage of a project's lifecycle is assessed and made as sustainable as possible. Work together with the project manager to incorporate sustainability requirements into project specifications and design plans.

Chart 23 Responsibilities of Project Sustainability Engagement [Source: L.Blanco, January 2024]

4.9.1 Key Performance Indicator for Sustainable planning

Roles	Responsibilities
Stakeholders	Ascertain that management systems are established to incorporate sustainability throughout all project functions
Project Manager	looking at all factors inside and outside, over the entire life cycle of the project. - direct the consumption of resources. - Include in the project budget and schedule the time and resources needed to implement the sustainability management plan.
Project Engineer	Work together with the project manager to incorporate sustainability requirements into project specifications and design plans
Construction Company	Ensure that project is meet its sustainability goals and objectives

Project impacts on the environment, society, and prosperity are assessed and measured using the P5 Standard for Sustainability in Project Management framework. One of the top organizations for sustainable project management (Cleere, 2022).

The P5 Standard is based on five lenses:

- **Product:** The impact of the project’s product or service on society, the environment, and prosperity.
- **Process:** The impact of the project’s activities and outcomes on society, the environment, and prosperity.
- **People:** The impact of the project on the people involved, including project team members, stakeholders, and the broader community.
- **Planet:** The impact of the project on the environment, including resource use, emissions, and pollution.
- **Prosperity:** The impact of the project on the economic well-being of the organisation and society.

Chart 24 Sustainable Planning KPI’s [Source: L. Blanco, January 2024]

P5 Domain	Definition	Key Performance Indicator	Metric
	Life expectancy of building	Building should maintain a good condition for more than 7 years	7 years

P5 Domain	Definition	Key Performance Indicator	Metric
Product	Examining of building requirements	80% of the time stakeholder should provide input on the examining of requirements	80% stakeholder involvements
Process	Effectiveness of project processes	80% of the project team should engage in the strategic planning of processes	80% of staff members
	Equality of project processes	At least 4 meeting should be concluded to ensure that stakeholders agree to process	4 meetings
People	Labor Practices and Decent work	Personnel needed to carry out the project. Training for qualification and in order to build up skills. Work in harmony, ensuring employe's have a safe environment both safe and are able to build trust, understanding and cooperation	Have trainings at least twice a week for 3 weeks and meeting once 1 week with team
	Society and customers	Ensure that there is team engagement. Policies and compliances are being followed.	1 meeting per week to review policies

P5 Domain	Definition	Key Performance Indicator	Metric
	Human rights	Ensure that work environment is safe, respectful and equality in employment	The team can consist of 4 female and males
	Ethical behavior	Fair competition ensuring that the suppliers provide good products and services	At least to suppliers
Planet	Transport	Higher percentage of procurement is done locally	55%
	Energy	Percentage of the energy consumption is the amount of energy used throughout the duration of the project.	92%
	Land, Air, and Water	Ensure that noise pollution is kept minimal at a 50%	50%
	Consumption	Reuse material where possible at least to a 70%	70%
Prosperity	Business case analysis	Ensure that financial analysis is done at least weekly, to have a	1 time weekly

P5 Domain	Definition	Key Performance Indicator	Metric
		monetary perspective.	
	Business agility	Ensure that no single approaches are taken during the phases of the project carry out meetings to discuss	1 time a week if needed
	Economic stimulation	Ensure that 98% of the project supports the local economy	98%

5 CONCLUSIONS

The Northern Medical Specialty Plaza is an important project for the community of Orange Walk, as this project engages in the overall well-being of its habitants. In order to have a manageable project it was necessary to create a development a project management plan which helped in monitoring, analyzing, and controlling the different phases of the project. Specific objectives were set in place to monitor and manage the entire project. Listed below are the nine specific objectives.

1. A scope Management plan was created to determine the scope of work of the project. In order to carry out the planning phases a project charter was developed. This project charter entailed the necessary information to further continue with the project planning and thereafter approve the scope of works and define the different scopes to carry out the project.
2. The schedule management plan was created to help the project team identify and input the deadlines for the carrying out of the different activities. Guided by the WBS that was created in the scope management phases project manager was able to identify the critical paths within the project and how because they can be managed
3. The cost management plan is one of the most important plans within the phases of the project as it helps to identify the total cost of the project. It ensures that the project remains within budget. This is necessary as it provides information on the cost of each phase in the project.
4. The Risk Management Plan was created to identify risk that may rise throughout the lifecycle of the project. It helps to identify, assess and in most cases mitigate those

risks in order to have a successful completion of the project. Through the analysis of the risk matrix the project team was able to identify the risks that are present with the project.

5. The procurement plan goes hand in hand with the cost management plan as it helps in the planning and creation of the of the cost management plan. This plan sets out the material that need to be procure for the different work packages of the project.
6. Stakeholder management plan this plan helped in identifying who the stakeholders are and which roles they play throughout the project. It helps in analyzing their importance in the project and how they can impact the project.
7. Quality Management helps in ongoing with accordance to the stakeholder requirements, it helps in ensure that the projects objectives are met in order to have a successful project closing. It helps in mitigating the risk of producing a poor-quality project.
8. The Sustainable Management Plan was created to help eliminate issues which could affect the social, economic and environment. For this plan the roles and responsibilities of the project were listed to encompass the sustainable management plan with the use of the P5.
9. A consolidated plan was created to ensure that the project for the Northern Medical Specialty Plaza expansion that there is proper planning and to ensure that the projects goals/objectives are met.

10. Overall, the plans created within this are essential to ensure that proper documentation is maintained in the event that changes need to be done and can all aid as historical documentation for future projects.

6 RECOMMENDATIONS

1. The Northern Medical Specialty Plaza Clinic expansion project use the recently created project management plan for future projects within the clinics compound as it will help in expert judgment and historical data which may be useful to the project manager to determine and do better planning.
2. When scheduling a project, it is important that the different factors which are presented in the risk management plan to ensure that the project is not delayed or affected negatively.
3. Ensure that proper planning on the budget is done taking into consideration even the smallest activity in the project, since those little chance can impact the cost and schedule of the project.
4. Ensure that for the procurement of the project at least 75% of it supports the local economy.
5. Ensure that the stakeholders are always maintained in the loop since their input is very important in the project.
6. The quality of the project should always be a priority. It would be best if a quality matrix is developed in order to have the team members become more aware of the importance of good quality.

7. Carefully identify both internal and external risk which can affect the project, keep risk matrix updated to ensure that risk is prioritized based on their level of gravity towards the project.
8. Sustainable project plan just always be developed based on the projects description and ensuring that it includes social, economic and environment issues within the projects surrounding. Ensure that the P5 is properly developed and used.
9. Ensure that consolidated plan is updated frequently and a properly backed-up to ensure data lost.
10. It is important that all plans developed within this project are properly dated and signature of approval is present in each document after any changes are made on respective documents to ensure that there is proper accountability.

7 VALIDATIONS OF THE FGP IN THE FIELD OF REGENERATIVE AND SUSTAINABLE DEVELOPMENT

Projects require planning, management, and control to deliver the desired outcomes; to do so it is necessary to have a team who is responsible for the different activities that the project entails. This helps in creating a project relationship, which occurs between the project manager and the project's stakeholders. Developing such relationships aids in the gaining of trust, which increases confidence across the project environment will minimize uncertainty and in also aids making decisions and applying the adequate countermeasures (Bourne, 2006).

Even though many project managers may wish that their projects run smoothly and meet with all the necessary requirements of the project. There is always uncertainty of what impacts might come up along the way. Impacts refer to how a project is affected. A project impact can either be positive or negative which may impact the environment, organization, community, people etc. (Clein, 2023)

On the other hand, there are two key concepts with cause great impact in the project's life cycle. Regenerative and sustainable development, Regenerative development is the use of resources to improve society's wellbeing in a way that builds the capacity of the support systems needed for future growth. What sustainable development is to traditional economic development, regenerative development is to sustainable development (Hes, 2019).

Sustainable development, approach to social, economic, and environmental planning that attempts to balance the social and economic needs of present and future human generations

with the imperative of preserving, or preventing undue damage to, the natural environment (Kulik, 2023).

This will aim in ensuring that the project members manage the Project in a sustainable way. It will also help in providing a framework for Project Sustainability. A Sustainability Management Plan will be prepared to help support the responsibility to economic growth, environmental protection, and social accountability. Throughout project will also aid in guiding the project team in decision making, management, and the daily operation of the project in a sustainable manner considering the environment, and people.

The scope of the project for the expansion of the Northern Medical Specialty Plaza clinic at Orange Walk District Project clearly contains the development of a new building that is to be created to obtain the necessary space to accommodate more patients and introduce new technology. Though, certain exclusions in the project scope may have potential impacts on sustainability:

Upholding: The project scope does not clearly cover any upholds of the newly expansion building area. If there is no established upholding plan, this could lead to increased operational costs and potential safety concerns for patients and staff.

Environmental Impact: Ineffective maintenance planning may lead to increased resource consumption and waste generation, impacting the project's environment.

Climate Change: Failure to consider climate resistance in the project scope could result in missed opportunities to build infrastructure and designs that can withstand potential impacts and safeguard guests and staff.

In terms of regenerative development this project can be impacted regarding the environment and economic as this is a construction project and construction revolves around three components of construction: materials, technology, and tools. This project will be treated as part of a larger system, helping to produce and share resources like clean water, energy, and food.

Key Performance Indicators

P5 Domain	Lens	Category	Element	Key Performance Indicator	Metric
People	Labour performance	Capitation of staff	Training Programmes	Training Completion Rate	100 % of staff trained
	Health and Safety	Health and Safety Plan	Incident Report Rate	Number of Reported Incidents	Less than 5% reported per quarter
	Ethical Behavior	Ethical Compliance	Ethics Policy Adherence	Ethics Policy compliance Rate	90% among employees
Planet	Transport	Standardized Procurement	Sustainable Procurement	Percentage of Sustainable Procurements	100% of procurements are sustainable procurements
	Land Air and Water	Biodiversity Management	Biodiversity Conservation	Biodiversity Guide	100% based on the biodiversity Index

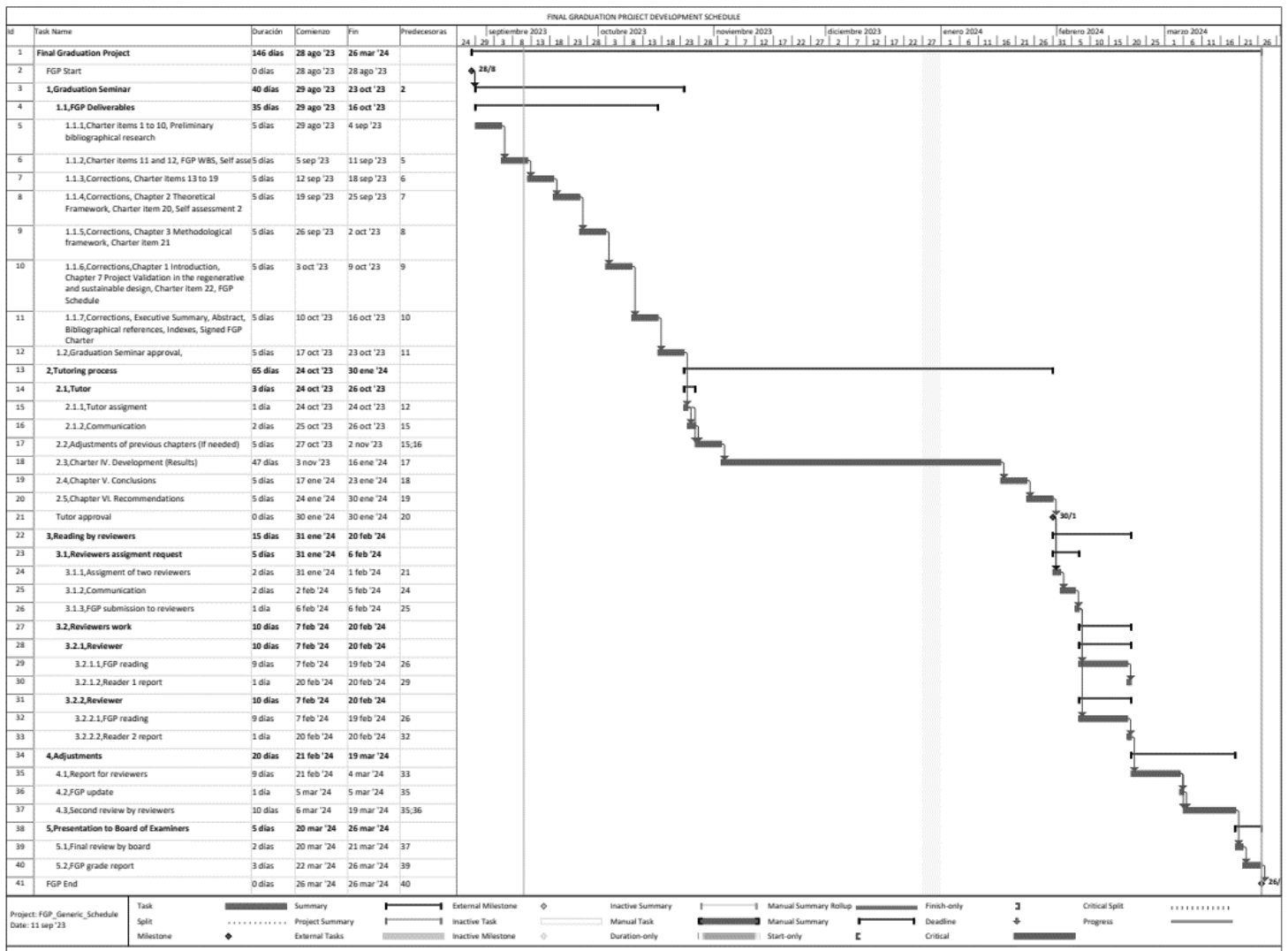
	Energy	Energy Efficiency	Energy Consumption	Energy Consumption Reduction	30% reduction
Prosperity	Project Feasibility	Probability Assessment	Finance Feasibility	Finance Viability Index	Achieve the financial viability index
	Agility	Business Adaptability	Business Adaptation Plan	Successful Implementation of Adaptation	

FGP Schedule

A project schedule is a tool that project managers use to plan, track, and communicate the timeline and milestones of a project. The schedule is a living document that outlines all the tasks that must be completed to finish the project on time and within budget, enabling senior management to adjust the project schedule baseline as needed while ensuring alignment for all stakeholders and team members on the approximate start and end dates for each task (PMA, 2023). The schedule presented is the activity with start dates along with their proposed completion time.

FGP Schedule

Figure 12 FGP Schedule [Source: L. Blanco, August 2023]



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9 APPENDICES

Appendix 1: FGP Charter

CHARTER OF THE PROPOSED FINAL GRADUATION PROJECT (FGP)

Student name

LUPITA MANUELITA BLANCO

FGP name

Project management plan for the expansion of the Northern Medical Specialty
Plaza clinic at Orange Walk District

Application Area (Sector or activity)

Construction for Health Sector

Student signature



Name of the Graduation Seminar facilitator

Professor Roger Valverde

Signature of the facilitator

Date of charter approval

Project start and finish date

August, 2023	October, 2023
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Research question

What are the requirements that must be included in a project management plan for the construction of the Northern Medical Plaza Clinic, Orange Walk District, Belize to be a sustainable project?

Research hypothesis

Is it possible to create a comprehensive Project Management Plan that includes the necessary requirement that should be applied to prevent sustainability challenges during construction the Clinic?

General objective

To develop a Project Management Plan for the expansion of Northern Medical Specialty Plaza Clinic project which will also aid in ensuring that the project remains sustainable.

Specific objectives

To develop a consolidated plan to integrate the necessary project strategies that will aid in the development of the project.

To create an analysis document to collect the requirements needed for the project to be a sustainable project.

To design and create a scope of works plan to establish necessary project information and project expectations.

To develop a schedule management plan to ensure that project deliverables are met.

To create a cost management plan to ensure that the project is that the scopes and requirements of the project are met, and project is completed within budget.

To develop a risk, change and configuration management plan to obtain information on how the project will record and manage any issues that may arise.

FGP purpose or justification

The purpose of the project is to develop a project management plan for the expansion of the Northern Medical Specialty Plaza clinic in Orange Walk District. This document will aid in planning and managing the project. It will aim in creating and describing the project details including the scope, schedule, cost, resources, and other keys plans which are considered important elements for the carrying out of the project. The management plan will be an essential tool for the development of the project as it will aid the project team in effectively managing changes as the project is being developed without having the risk of failing to meet deadlines and goals.

The project management plan will allow the project team to have an organized overview of the project as it will allow team members to break down large tasks into smaller ones and work according to priorities. In addition, this document will help to take a better planning for future changes in scope or the schedule. The project management plan document will ensure to include all necessary elements and concepts are included for the proper implementation and development of the project while ensuring sustainability is present within the project.

Work Breakdown Structure (WBS) In table form, describing the main deliverable as well as secondary, products or services to be created by the FGP.

FGP

FGP Deliverables

- 1.1.1 Charter items 1 to 10, Preliminary bibliographical research
 - 1.1.2 Charter items 11 and 12, FGP WBS, Self assessment
 - 1.1.3 Corrections, Charter items 13 to 19
- 1.1.4 Corrections, Chapter 2 Theoretical Framework, Charter item 20, Self-assessment 2
 - 1.1.5 Corrections, Chapter 3 Methodological framework, Charter item

1.1.6 Corrections, Chapter 1 Introduction, Chapter 7 Project Validation in the regenerative and sustainable design, Charter item 22, FGP Schedule

1.1.7 Corrections, Executive Summary, Abstract, Bibliographical references, Indexes, Signed FGP Charter

1.2 Graduation Seminar approval

2 Tutoring process

2.1 Tutor

2.1.1 Tutor Assignment

2.1.2 Communication

2.2 Adjustment of previous chapter

2.3 Charter 4 Development

2.3.1 Approved Charter

2.3.2 Scope Management Plan

2.3.3 Stakeholder Management Plan

2.3.4 Scope Management Plan

2.3.5 Schedule Management Plan

2.3.6 Cost Management Plan

2.3.7 Resource Management Plan

2.3.8 Procurement Management Plan

2.3.9 Quality Management Plan

2.3.10 Risk Management Plan

2.3.11 Sustainable Development Plan

2.4 Chapter V Conclusion

2.5 Chapter VI Recommendations

Tutor Approval

3 Reading by reviewers

3.1 Reviewers' assignment request

3.1.1 Assignment of two reviewers

3.1.2 Communication

3.1.3 FGP submission to reviewers

3.2 Reviewers Work

3.2.1 Reviewer

3.2.2.1 FGP Reading

3.2.2.2 Reader 2 report

4 Adjustments

4.1 Report or viewer

4.2 FGP Update

4.3 Second review by reviewer

5 Presentation to board of Examiners

5.1 Final view by board

5.2 FGP grade report

FGP End

FGP budget

No.	Expenses	Estimated Cost (US)
1	Procurement of License for Office 365	\$ 13.00
2	Time of Work to carry out interviews	\$ 450.00
3	Transportation for interviews	\$ 150.00
4	Phone Allowance	\$ 70.00
5	Food allowance	\$ 150.00
6	Processing information	\$ 50.00
7	Proof reading reviewer	\$ 175.00
8	Philologist	\$ 400.00
9	Printing of document	\$ 125.00
10	Complying of FGP project	\$ 100.00
11	Travel to Costa Rica for presentation	\$ 800.00
12	Accommodation	\$ 600.00
13	Food allowance	\$ 200.00
14	Others	\$ 300.00
	Total	\$ 3,583.00

FGP planning and development assumptions

1. Information will be readily available as the project manager is an organized and is easy to communicate with.

2. Time should not be an issue while developing the project management plan as additional research for the FGP of at least 20 hours will be done per week during the development process.

FGP constraints

Time due to flexibility at work

Lack of access to information.

Struggling to meet deadlines due to commuting from work.

Contacting a philologist that is not too occupied.

Rescheduling interviews due to the responsibility of project manager.

Locating a stationery/printing place that can prepare final document based on the requirements delivery.

The maximum time frame to finalize the FGP.

FGP development risks

Work overload, having to carry out field work at my current job place which does not allow me to fully focus on the FGP.

Availability of the project team who provide the information.

Different time schedule for the project team.

My device is currently working slowly.

Data collection in the field, which might delay the delivery of the development.

FGP main milestones

Milestones are related to deliverables on the second level (deliverables) and third level (control accounts) of the WBS of section 14 of this Charter. At the same time the deliverables are related to the specific objectives (in the case of the FGP please include the times for the tutorship reviews as well as for the readership).

Deliverable	Finish Estimated date
1 FGP	26-Mar-24
1.1 FGP Deliverables	28-Aug-23

1.1.1 Charter items 1 to 10, Preliminary bibliographical research	04-Sep-23
1.1.2 Charter items 11 and 12, FGP WBS, Self assessment	11-Sep-23
1.1.3 Corrections, Charter items 13 to 19	18-Sep-23
1.1.4 Corrections, Chapter 2 Theoretical Framework, Charter item 20, Self-assessment 2	25-Sep-23
1.1.5 Corrections, Chapter 3 Methodological framework, Charter item	02-Oct-23
1.1.6 Corrections, Chapter 1 Introduction, Chapter 7 Project Validation in the regenerative and sustainable design, Charter item 22, FGP Schedule	09-Oct-23
1.1.7 Corrections, Executive Summary, Abstract, Bibliographical references, Indexes, Signed FGP Charter	16-Oct-23
1.2 Graduation Seminar approval	23-Oct-23
2 Tutoring process	30-Jan-24
2.1 Tutor	26-Oct-23
2.1.1 Tutor Assignment	24-Oct-23
2.1.2 Communication	26-Oct-23
2.2 Adjustment of previous chapter	02-Nov-23
2.3 Charter 4 Development	16-Jan-24
2.3.1 Approved Charter	16-Jan-24

2.3.2 Scope Management Plan	17-Jan-24
2.3.3 Stakeholder Management Plan	17-Jan-24
2.3.4 Scope Management Plan	18-Jan-24
2.3.5 Schedule Management Plan	18-Jan-24
2.3.6 Cost Management Plan	19-Jan-24
2.3.7 Resource Management Plan	19-Jan-24
2.3.8 Procurement Management Plan	20-Jan-24
2.3.9 Quality Management Plan	21-Jan-24
2.3.10 Risk Management Plan	22-Jan-24
2.3.11 Sustainable Development Plan	22-Jan-24
2.4 Chapter V Conclusion	23-Jan-23
2.5 Chapter VI Recommendations	30-Jan-23
Tutor Approval	30-Jan-23
3 Reading by reviewers	20-Feb-24
3.1 Reviewers' assignment request	06-Feb-24
3.1.1 Assignment of two reviewers	01-Feb-24
3.1.2 Communication	05-Feb-24
3.1.3 FGP submission to reviewers	06-Feb-24
3.2 Reviewers Work	20-Feb-24
3.2.1 Reviewer	20-Feb-24
3.2.2.1 FGP Reading	19-Feb-24
3.2.2.2 Reader 2 report	20-Feb-24

4 Adjustments	19-Mar-24
4.1 Report or viewer	04-Mar-24
4.2 FGP Update	05-Mar-24
4.3 Second review by reviewer	19-Mar-24
5 Presentation to board of Examiners	26-Mar-24
5.1 Final view by board	21-Mar-24
5.2 FGP grade report	26-Mar-24
FGP End	26-Mar-24

To complete this section several charts and figures had to be created in order to represent the necessary information of the organization. The use of the Project Management Institute textbook 6th & 7th edition was used to obtain referential information and background information on concepts and theories.

Basic conceptual framework

Project management plan, project management, Northern Medical specialty clinics, sustainable design and construction, other plan needed for the development of the FGP.

Objective	Name of deliverable	Information Source	Research Method	Tools	Restrictions
To develop a consolidated plan to integrate the necessary project strategies that will aid in the development of the project.	Project Documentation- this is a document that is prepared during the lifecycle of the project from start to finish. Which will actively contribute the create and develop of the plan for	Interview the project leader. Observation on what the project stands. Recording/ Videos: On Project strategies “Strategy Development: What is strategy and	This method will be implemented in the way that it will assist them in this objective based on the observations, this method will observe and record the persons involved	For this objective, two main tools will be used for this FGP. For this FGP the WBS will be used to breakdown key project elements into smaller components. This tool will help in mapping all	

	<p>the integration of necessary strategies for the development of the project.</p>	<p>how to develop one” (Sasal, 2017)</p> <p>Textbooks: Project Management Institute textbook both 6th and 7th edition</p>	<p>without direct contact.</p> <p>This method is applied on this objective in the way that data will be collected from the interview and complied in a what that the</p>	<p>necessary tasks of the project. It will aid in defining, validating, and controlling the project scopes. This will aid in organizing and identifying work and breaking it down into smaller and more manageable pieces. This manage critical paths and would ensure that the necessary</p>	
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			<p>data can be used to develop the FGP.</p> <p>This method is important and very helpful for this FGP as it the data can be gathered independently and is data collected firsthand which make it easier to prepare the plan for the strategies that are need for</p>	<p>strategies are integrated into the FGP</p>	
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			the integration plan.		
To create an analysis document to collect the requirements needed for the project to be a sustainable project.	Design plan for the project- This design plan will create an idea of what the project entails and how it will be able to adapt to the requirements for the project to be a sustainable project and how it can continue	Conduct interview with project leader to collect information on the project development. Conduct a survey with necessary information on the requirements for a project to	The descriptive method on this object will collect and analyze data that was gathered during the survey and the interview carried out. This method collects a large amount of data from the subject or topics	For this objective a tool that would be used is the project dashboards. This tool would generally allow us to view the project's progress and performance, it would help in collecting high-level data. It would also allow to analysis,	

	<p>contributing to sustainability one the project is completed.</p>	<p>remain a sustainable project. Recording/ Videos on sustainable projects “Sustainable Developme nt Goals and tips” (Illustrated, 2020) Textbooks: Project Managemen t Institute textbook both 6th and 7th edition</p>	<p>through questionnaire s or interviews. This method is to be used to collect interview from the interview and observations done. Observation on what was seen, heard, or encountered. This method, unlike this method, can</p>	<p>determine, and implement the correct methods for the project to remain as a sustainable project.</p>	
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		<p>Project Management Institute. (2017). A guide to the Project Management Body of Knowledge (PMBOK guide) (6th ed.). Project Management Institute Article: Sustainability in Project Management Practice (Johannesburg, 2000)</p>	<p>often supplement or strengthen existing secondary research. This will help in this active collecting of data for the requirement need for the project to follow as a sustainable project.</p>		
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<p>To design and create a scope of works plan to establish necessary project information and project expectations .</p>	<p>Project Scope Template- this deliverable will help identify project objectives, tasks, exclusions, and constraints so you and your team have a clear idea of the work that will be executed to deliver your project. Project Scope</p>	<p>Interview project leader to get insights on the project activities, scope of works etc. Interview Contractor to get the information must how they plan on starting and carrying out the project according to what is on the project scope</p>	<p>For this objective this method will focus mostly on data collection as it is necessary to obtain the necessary information about the project's activities, and what all work will be carried out during the project. Under this method the observational method will</p>	<p>Essential tools for this objective are a WBS, meetings. For this FGP the WBS will be used to breakdown key project elements into smaller components. This tool will help in mapping all necessary tasks of the project. It will aid in defining, validating, and</p>	
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	<p>Statement- lists the final deliverable for the project, whether that's a product or service. All deliverables in the project will be described in detail in the project scope statement as it helps avoid confusion with stakeholders later in the project.</p>		<p>be applied in order determine the scope of work for this FGP. The method that will be used is to compile information gathered from the interview regarding the scope of work and what is expected of the project. In this method the information that is needed</p>	<p>controlling the project scopes. Meeting in this case will be used as a tool which will help in maintain proper communication with project team and stakeholder, this will help in providing daily/week update on the different activities that are carried out for the project. In the meeting it will also be</p>	
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			to be gathered is for the works that are to be carried out for the FGP.	discussed if there are any risks, change or concerns that need to be address as well and identifying countermeasure for any issue that might have arisen.	
To develop a schedule management plan to ensure that project deliverables are met	A report on the different activities and scopes of work that the project entails. This deliverable will help in analysis and	Interview project team in other to obtain the information on the project schedule to develop a plan that	The data collected is qualitative and quantitative, it gives a holistic understanding of a research topic	Tools used for the development of a schedule management plan are calendar, Gantt chart and schedule	

	<p>identifying the different activities that need to be considered and inputted in the project plan.</p>	<p>goes according to the project's coordination 's.</p>	<p>and how each activity will fall into place according to the schedule.</p> <p>The information is varied, diverse, and thorough.</p> <p>The qualitative method that will be used to collect and analyze the information obtained from the interview regarding the development of the</p>	<p>network analysis.</p> <p>The calendar would aid</p>	
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			<p>schedule management plan. In this method the data collection being applied is interviews. Interviews rely on asking questions to collect information about a group of people. However, how this is done is slightly different. interviews</p>		
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			involve two or more people—one of whom is you, the interviewer, who asks the questions.		
To create a cost management plan to ensure that the project is that the scopes and requirements of the project are met, and project is	A financial report will all necessary expense is required to complete this objective. This deliverable will help in including all necessary works and	Interview project team (Project Leader, Financial Administrator) to get the necessary information on the project scopes and	This research method will aid in the data collection for the development of the cost management plan as it will implement an additional method within in	Tools that are essential in the development of a cost management plan are Cost estimate plan- this is important so that it can be used at the initial phase of the project to	

<p>completed within budget.</p>	<p>purchases that are required for the development of the FGP</p>	<p>requirements of the project to develop the cost management plan.</p>	<p>order to get quantitative data. For this objective this method will aid in the gathering of data for the cost management plan, data that will be used to develop the plan and identify the necessary costing of the project. For this method it is necessary to maintain</p>	<p>determine the approximate cost of the project. Budgeting- this is also an important tool as it is incorporated in the planning phase of the project to allocate the resources and set a baseline for the FGP cost. Cost monitoring- this tool is necessary in the execution phase</p>	
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			<p>control over the quality of the data collected, and to ensure firsthand that it is objective, reliable, and valid. This objective is an important part of the project as it what would finance the project and the information gathered is to create a budget.</p>	<p>as it is important that during the different phases of the project tracking of the actual cost is done to compare with the budget.</p>	
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<p>To develop a risk, change and configuration management plan to obtain information on how the project will record and manage any issues that may arise.</p>	<p>Risk reports: this is necessary to analyze the risk that the project may be vulnerable to. This risk report deliverable plays an important role in this objective as risk can impact the project negatively in order to have countermeasures set in place it is necessary</p>	<p>Observations: Observe the surrounding factors of the project and which may affect it. Interview the project team to get information on the factors or similar risk that they have encountered on any previous project to</p>	<p>Under the Descriptive method a method that will be used for this objective is the” The basis for further research”: Researchers further research the data collected and analyzed from descriptive research using different research</p>	<p>Brainstorming is an important tool for the development of a risk management plan, as must assess the risks that could impact your project. Probability and impact matrix- This tool will help in prioritizing risks which are important since do not want to waste time chasing a small risk and</p>	
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	<p>to have the risk report on hand and the project documentation</p>	<p>get insights on how to deal with risk, change and other factor that my keep back the project.</p>	<p>techniques. The data can also help point towards the types of research methods used for the subsequent research.</p> <p>This method will be used in conducting in-depth interviews to collect the necessary information and past experiences of risks,</p>	<p>exhaust your resources.</p>	
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			changes of configuration that may happen through the project phases. You maintain proprietary control over what you find out, allowing you to share your findings with like-minded individuals or those conducting related research that interests you		
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			<p>for the gathering of information based on past or similar project which may have face similar risk, changes, and configuration.</p> <p>This data collect is necessary to prevent and be able to find immediate countermeasu res.</p>		
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The scope of the project for the expansion of the Northern Medical Specialty Plaza clinic at Orange Walk District Project clearly contains the development of a new building that is to be created to obtain the necessary space to accommodate more patients and introduce new technology. Though, certain exclusions in the project scope may have potential impacts on sustainability:

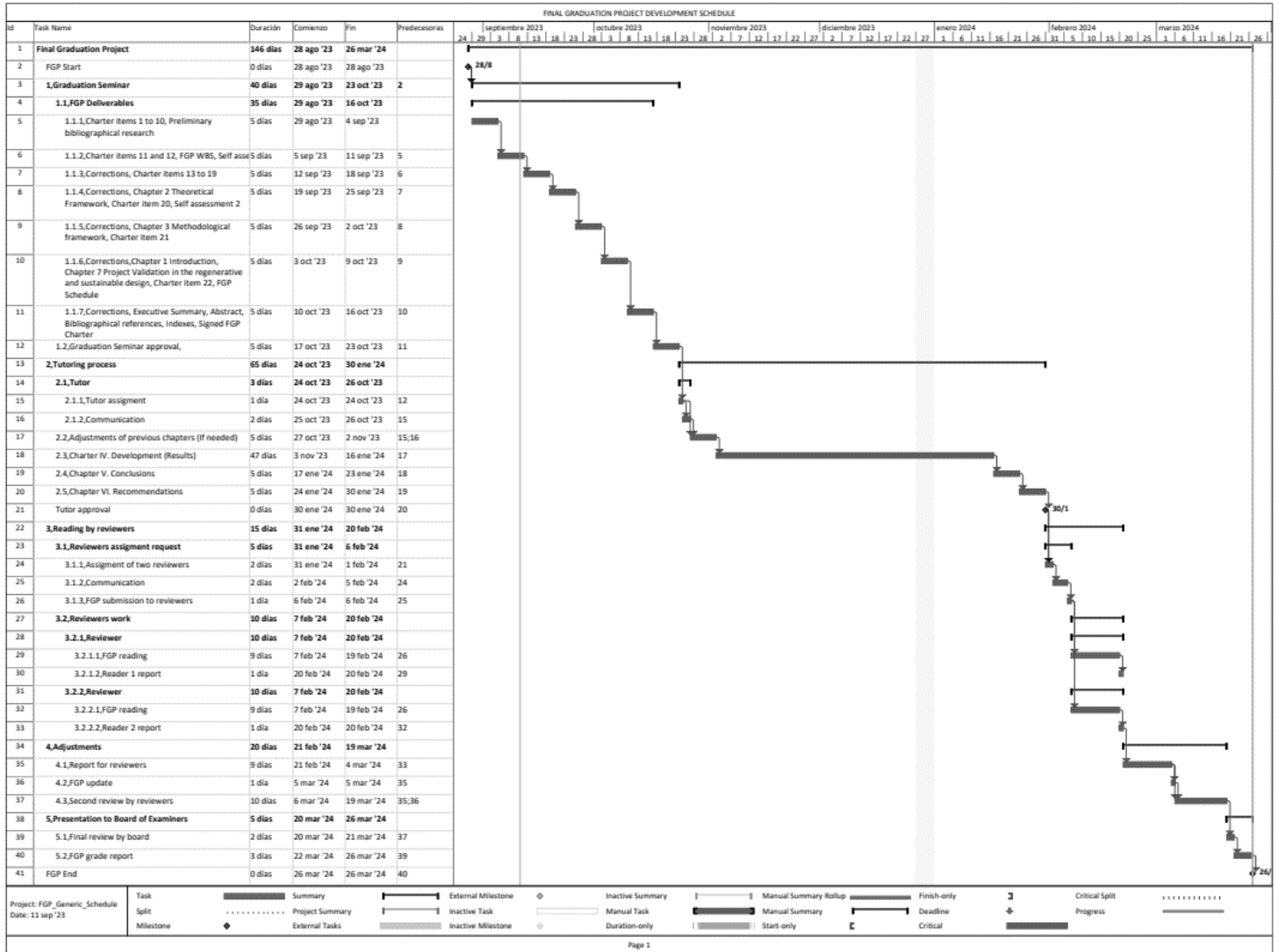
Upholding: The project scope does not clearly cover any upholds of the newly expansion building area. If there is no established upholding plan, this could lead to increased operational costs and potential safety concerns for patients and staff.

Environmental Impact: Ineffective maintenance planning may lead to increased resource consumption and waste generation, impacting the project's environment.

Climate Change: Failure to consider climate resistance in the project scope could result in missed opportunities to build infrastructure and designs that can withstand potential impacts and safeguard guests and staff.

In terms of regenerative development this project can be impacted regarding the environment and economic as this is a construction project and construction revolves around three components of construction: materials, technology, and tools. This project will be treated as part of a larger system, helping to produce and share resources like clean water, energy, and food.

Appendix 3: FGP Schedule



Appendix 4: Preliminary bibliographical research

- Belize: Belize building regulations, 2022 - *central building authority ...* (n.d.).
<https://www.centralbuildingauthority.org/wp-content/uploads/2023/01/SI-No-157-of-2022-Belize-Building.pdf>
- Reference is to be used to obtain the necessary information as to what are the requirements for the approval of the permit for the construction of the clinic.
- Central Building Authority - CBA Belize. (n.d.). *Central Building Authority Belize*. Retrieved September 4, 2023, from <https://www.centralbuildingauthority.org/>
- This reference is to be used to apply for the permit that is needed to carry out any construction within the country.
- Cornelius Fichtner Host (2020), *Interview with Gerard Hill on Project Management Methodologies Episode 032*.(PM Podcast), <https://www.project-management-podcast.com/podcast-episodes/episode-details/28-episode-032-interview-with-gerard-hill-on-project-management-methodologies>.

- Reference on the podcast was integrated in the preliminary bibliography so as to get additional background information on the different Project management methodologies.
- Friedrich, K. (2021). *A systematic literature review concerning the different interpretations of the role of sustainability in project management*. Management Review Quarterly. <https://doi.org/10.1007/s11301-021-00230-z>
- This reference will aid in the enhancement of the different concepts that can be applied and considered under the Branch of sustainability in Project management.
- Kerzner, H. (2009). *Project Management: A Systems Approach to Planning, Scheduling, and Controlling* (10th ed.). Wiley.
- I consider this reference an important one as it helps in providing additional needed information while carrying out the development of the of the planning, scheduling and controlling in the different phases of the Project.
- *Licensing and accreditation (2023) Ministry of Health & Wellness*. Available at: <https://www.health.gov.bz/services/licensing-and-accreditation/> (Accessed: 04 September 2023).

- Reference is to be used to obtain the needed information for the requirement of the construction of a health care facility in the country.
- Organ, C. (2023) *Work breakdown structure (WBS) in Project Management, Forbes*. Available at: <https://www.forbes.com/advisor/business/what-is-work-breakdown-structure/> (Accessed: 11 September 2023).
- Reference used to obtain further information on the work breakdown structure which will guide in the creation of the WBS.
- Project Management Institute. (2017). *A guide to the Project Management Body of Knowledge (PMBOK guide) (6th ed.)*. Project Management Institute.
- The references intend to be used as a fundamental source of guide for the different concepts that are relevant to the development of the project.
- Project Management Institute. (2021). *The Standard for Project Management and a Guide to the Project Management Body of Knowledge (PMBOK Guide) (7th Ed.)*. Project Management Institute, Incorporated.
- The PMBOK Guide is to be used to ensure that the proper implementation of best practices based on the learning throughout the program are being followed.
- Sustainability in Project Management. (2021). *Sustainability in Project*

- *Management a functional Approach*. (1st Ed.). Project Management, Incorporated.
- Reference to be used to obtain background and relevant information on how to apply and guide the team in ensuring that the right approaches are taken throughout the project.
- The Ministry of Infrastructure, Development & Housing Belize | MIDH Belize.
(n.d.). *Ministry of Infrastructure Development & Housing*. Retrieved September 4, 2023, from <https://www.midh.gov.bz/>
- Reference is used as an insight for the understanding of the construction regulation that must be followed within the country of Belize so as to avoid any unnecessary setbacks through the process of obtaining the permit.

Appendix 5: Philological Dictum

Stephanie Flores Bradshaw

Lot 18 Castillo Estate
13.5 Miles Philip Goldson Highway
Belize District, Belize
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Academic Tutor
Master's Degree in Project Management
Universidad para la Cooperación Internacional
C. 35, Barrio Escalante
San José 10101
Costa Rica

February 27, 2024

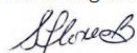
Re: Philological Review of Final Graduation Project submitted by Lupita Blanco in partial fulfillment of requirements for a Master's Degree in Project Management (MPM)

Dear Academic Tutor,

With this letter, I confirm that I have reviewed the Final Graduation Project (FGP) submitted by MPM candidate Lupita Blanco entitled "Project Management Plan for the Expansion of the Northern Medical Specialty Plaza Clinic Located in Orange Walk."

I hereby confirm that Ms. Blanco has made all the corrections to the FGP as I have advised as philologist. It is my professional opinion that the document meets the literary and linguistic standards in written English as required for the MPM by the Universidad para la Cooperación Internacional.

Warm Regards,



Stephanie Flores Bradshaw

Philologist