

PROJECT MANAGEMENT PLAN

For Sustainable Home Construction

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Introduction

This report relies upon using procedures, academic models, and techniques to encourage a plan to meet the perceived proposition of the recognized proposal of a project management plan for a Sustainable Home Project. In addition, a productive project scope with clear targets, sensibility, credibility, and value to meet the perceived improvement need and suppositions for the project will be presented. An appraisal of the vehicles, for example, Stakeholder analysis, project organizational structure, resources use, and benefits will be figured out through their practicality in which they are fitting in recognizing and satisfying the improvement needs of the Sustainable Home to meet various levelled accomplishments. After more, the risk management plan and the communication strategy will be introduced. A project management plan is a conventional record that characterizes how a project will be done. It frames the scope, objectives, financial plan, course of events, and deliverables of a project, and it is fundamental for keeping a task on target ([Amgad, B. 2016](#))

Sustainable Home

This project looks to develop a new house for a family High - quality, Certified, Rustic family House in Romania with Sustainably Sourced materials.

The entire project will keep going for around 395 days. It will have various stages including planning, development, inside design, and painting. The project manager estimates that the project will cost about £550.000, and the undertaking will build the item arrangement of the organization and thus, it will build the organization's upper advantage.

Project Scope

The objective of this project is to construct a single-family house in Romania in 13 months or less. The home will be worked from economically obtained material at every opportunity and remember highlights for the deliverable rundown to decrease

the inhabitants' drawn-out carbon impression. The home particular for this undertaking requires a bigger completed area and a huge obtaining of innovative materials and frameworks. Hence, the initial hierarchical gauge accommodated a spending plan not to surpass £100.000. Furthermore, the particulars of the number of rooms, and other underlying characteristics of this house depend on what home purchasers want. With regards to the maintainability targets, the home will not have extravagance conveniences like lifts, wine coolers, a wet bar, or a game room.

Our organization CREDIT-IMOB BOTOSANI, will appoint this undertaking to create and send off great modified homes in the whole Romania market. The homes are intended to give clients stylish, manageable choices, to the product portfolio of the Company, and to conduct in urban communities before spreading in different countries. Different targets were to grow the organization's primary concern by something like half and work on the client's satisfaction.

Stakeholder analysis

Stakeholder analysis is planned to recognize the gatherings that are associated with the project to guarantee their correspondence needs are realized by the project team (Eskerod, P., Larsen, T. 2018). The examination of the partners for this project are three primary gatherings: the client, the contractor, and the county (inspection and permitting). The property holder, project manager, and general contractor will update one another as each subtask is finished, and if any movement will create delays, or inflated cost, influence project inspection or completion milestones when they are recognized. The objective of this examination is to guarantee the project characterizes what information is relevant to partners and who adds to the project's progress.

The stakeholders in this project are satisfied with the result as clients valued the presentation of customized items that increment their choices in the commercial center while buying homes. The plan, style, and durability of the homes thrilled the management of the Company. The organization staff associated with the course of the construction, so publicizing, advancing, and launching the homes, before and after the launch, are happy with the experience. The project manager will be kept advised about parts of the project by the project team, general contractor, and

county Inspector to make changes in time, cost, or supplies. The project team will be receptive to all levels of the project to determine issues when reasonable and the County Inspector will give composed written copies of each inspection milestone as it is achieved to document the development stages.

Project Organizational Structure

The expectations of this project are contracting, planning, permitting, acquisition, staffing, inspection, development, and approval. The Project Team will be chosen by the project manager to work on the project and is responsible for counselling, mastering proficient investigation and quality control during the venture. The homeowner, alluded to as the client, is the essential partner of the project. Furthermore, the architect will go about as the project manager. The general contractor for hire is the overseer of the subcontractors dealing with the house and is liable for the control of all parts of sub-contract performance. The County is the public authority organization liable for entrusting and archiving development assessments to guarantee all parts of the errands meet building regulations, and area and state necessities. They will likewise be answerable for recording all resistance norms while exploring. Project members will be assigned to specific task groups for functional control, however, will stay under the regulatory control of their separate useful supervisor. Prime and sub-contractors are supported, however not needed, to reflect the team organization structure to the maximum extent practical to guarantee simplicity of partner matching. Functional team leads will be answerable for all parts of the board for the colleagues, incorporating recruiting, terminating, hiring and constant preparation, government assistance, and discipline of the group. Team members will fall under the functional control of the individual responsible for the task relegated. This incorporates everyday work tasks as expected to follow through with the job in question

Work Breakdown Structure (WBS)

This assessment has attached an appendix of a PowerPoint Presentation already presented publicly. Furthermore, the presentation on pages 6 and 7, has a Work Breakdown Structure (WBS). The advantage of a deliverable situated WBS is that it

improves the course of cost assessment, permits seeing the complete work scope, explains the connections among components and can be used during all task stages. It's more straightforward to adjust as the project may change and last, it upholds earned value management. A key principle of the WBS for a building project is the 100 per cent rule. According to this document's rules, the work breakdown structure must show the entire project scope, including all deliverables so the project management services, engineering and design. The WBS is a flexible task for the executive's tool that can be used in many fields, as well as showing the graphical portrayal, a construction manager can show in text and tables. WBS programming can interpret this data into different arrangements and synchronize the progressions all through.

This construction work breakdown structure for this sustainable home shows significant milestones and deliverables, from site preparation to the last walkthrough. The order breaks down into objects, like plumbing, and into processes, like inspecting. By including items and cycles, this model uses a mix of deliverable-oriented and phase-based structures.

Draft of costs

The Sustainable Home development project depends on a careful spending plan not to surpass £550.000. This financial plan was gotten from an underlying hierarchical gauge by the corporate managers. It is likewise ready to get detailed pricing estimating of exceptionally good quality 3500 square foot home with a geothermal intensity siphon unit, worked by CREDIT-IMOB BOTOSANI and gives explicit structure models that consider the gauge to be changed to meet the undertaking goals and the financial plan would turn out to be more precise as the task advanced. The Sustainable Home Project planned Cost of Work Scheduled gives the exact following of every deliverable if it is under cost or over cost when contrasted with the venture gauge. The following considers the cost of assets paid. The spending plan cost has been joined in the appendix (WBS), which gives the exact financial plan following as the venture advanced considering changes and changes when every general undertaking was accounted for. For this task has been utilized WBS likewise tracks the fluctuation over the long run using the report. The difference over the long

run in WBS considers seeing "Cost and timetable changes for the undertaking in light of status date.

Resources use in the project

The resources come from recyclable and standard sources (hydro energy, sun-situated energy, and wind power) as it helps the environment and the cost all through the destiny of being harmless to the ecosystem power. The sustainable power sources should at first accommodate roughly 2,000 KWH each month from Grid-tile housetop sunlight-based establishment with Micro-network AC Coupling, upgradable to full energy freedom, like twist age, with extra property holder venture. The plan should work with the utilization of normal lighting however much as could be expected, utilizing bay windows and energy-productive windows and entryways. Each room should have security, fast web, satellite TV, and movement detection for showroom occupation to be involved with HVAC drafting and robotized lighting choices for more productive energy use. All apparatuses will be essentially Energy Star agreeable. The design will be worked with at least 2 X 6 inch reasonably obtained outlining to consider expanded protection and underlying security. The correspondence framework will be planned with the latest accessible purchaser innovation.

Benefits from the project

This project will have the advantage of a 3,500-square-foot completed home, with four rooms and 4 restrooms. The exterior finish is an environmentally preferable item, with energy freedom frameworks, remembering rooftop solar energy installation establishment for understanding the Romania Energy commission, with environmentally friendly power battery support building/room connected to the back of the carport and a geothermal intensity siphon. Will likewise give a 2-vehicle, finish the garage, completed carport, protected and sheet shook with an upper room stockpiling region and with worked in association for electrical vehicle recharging. Will incorporate the energy Star, or higher, evaluating all-electric Stainless steel kitchen machines, to incorporate enlistment cooktop, double stoves, worked in microwave and dishwasher. The inside finish will utilize naturally ideal materials as

indicated by Sustainable Design and incorporated, insightful control frameworks for lighting, warming, ventilation and control systems for lighting, heating, ventilation and air conditioning, high-velocity internet, and entertainment.

Project Schedule

To keep work on target the project manager should coordinate team members, oversee timetables, and ensure the work is finished by the first arrangement.

Scheduling frequently starts as point-by-point plans are created along the process. This will require steady communication between the project stakeholders and the project manager, as they should be informed regarding scheduling changes or delays in execution. It is because of the provisional idea of scheduling that cost control is likewise a powerful cycle. The initial schedule and the cost should be changed in the radiance of new information obtained during the project life expectancy. This implies that scheduling and cost control will vary during the project as the project manager acclimates to evolving conditions. The appendix has attached a development Gantt outline model. A project manager requires to follow tasks, and project models in the best way to deal with start and to address errands as fragments on a period scale and this will assist plan and monitor with resource allocation or project development. The ongoing project has a duration of 395 days, with project completion on 5 September 2023. There is plausible that the home holders should move in sooner than they are currently planning since they will sell their current home. The project team will survey an alternate course of action to decide the achievability of a prior move-in date. By crashing a portion of the basic tasks, the team could bring the project time from 395 days down to 365 days for a 9 August culmination and further crashing should be possible to decide extra time investment funds, although that would accompany a cost. This approach will expect that material expenses would not change thus the accident could be accomplished by compensating double time.

Risk Management Plan

The risk management plan lays out policy, disperses direction and conveys strategies to guarantee the best utilization of risk management procedures within the project. A project's people, interaction, and innovations can be supporters of expanded chances. Risk management requires proactive gamble distinguishing proof, examination, mitigation, and documentation techniques and should consolidate the project team, subcontractors, and key stakeholders to meet project targets. This home risk plan is directed by a project scope statement, a schedule management plan, a cost management plan, and a correspondence plan. The extent of this record gives a risk spotlight to the project team on project activities including timetable, cost, and technical project viewpoints and recognizes parties for which some risk responsibilities will legally be moved. The fundamental risk of this home arrangement is Economics, as well as natural, social, and policy-centered issues that are sourced from outside risk. The absolute length of the venture, including the executives save, won't surpass and quality and extension prerequisites will be met, except if changes are endorsed through a proper change request process. The main risk management procedures are to recognize dangers and risks sooner rather than later, analyze the seriousness and likelihood of risk factors, plan mitigations to limit the impact on goals, execute chance and risk alleviations, acknowledge the risk, and monitor and archive risk/issue ([Raydugin, Y. 1963](#)).

This recognizes the risk management process used in this sustainable home, following recognizable proof, analysis and actions should be initiated to determine arising issues. Risk management processes are vital to our project system and execution.

Communication strategy

During the Sustainable Home Project, coordinating communication through foreordained modes was guaranteeing clear compact responses to issues, questions, and endorsements. This component all the work. Email and signed or certified mail printed copies for documentation will be the favoured technique for communication. Face-to-face and hardcopy communication will be expected for any acceleration of reports that influence the scope of the project, cost, and time. All change solicitations will require email and printed copies once supported.

Conclusion

Likewise, my evaluation has shown that a solid same and work correspondence helps with giving a positive outcome to any project and works away at the improvement of an organization. This report has introduced the strategies, models and methods that urge an arrangement to meet the apparent recommendation of a perceived proposition of a project management plan for a Sustainable Home Project. Moreover, a useful task scope with clear targets, reasonableness, validity, and worth to meet the apparent improvement need and speculations for the venture has been illustrated. This has empowered project managers to acknowledge simultaneous tasks and more prominent benefits over the long term.

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Appendix:

Slide 1



Slide 2

Project Outline of Sustainable House

- Build a High –quality , Certified, Rustic family House in Romania.
 - Sustainably Sourced material
- This construction plan it is including the following:
 - Residential complex of 5 people
 - 2 Toilet for all house
 - Parking for 2 car
 - Garage included



The introduction of this project is sustainable House. This home will be built from sustainably sourced material, so the home will not have luxury amenities such as elevators, game room etc.

Furthermore, the Project Scope and the Deliverables will be presented.

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Project Scope and Description

Project Duration:

Expected date of beginning - 9 August 2022
Expected end date - 5 September 2023

Project cost:

£550.000

Project location:

Romania, Baia Mare

Project Analysis:

- Structural detail of home constructing project
- Construction cost Analysis
- Power and electricity requirement

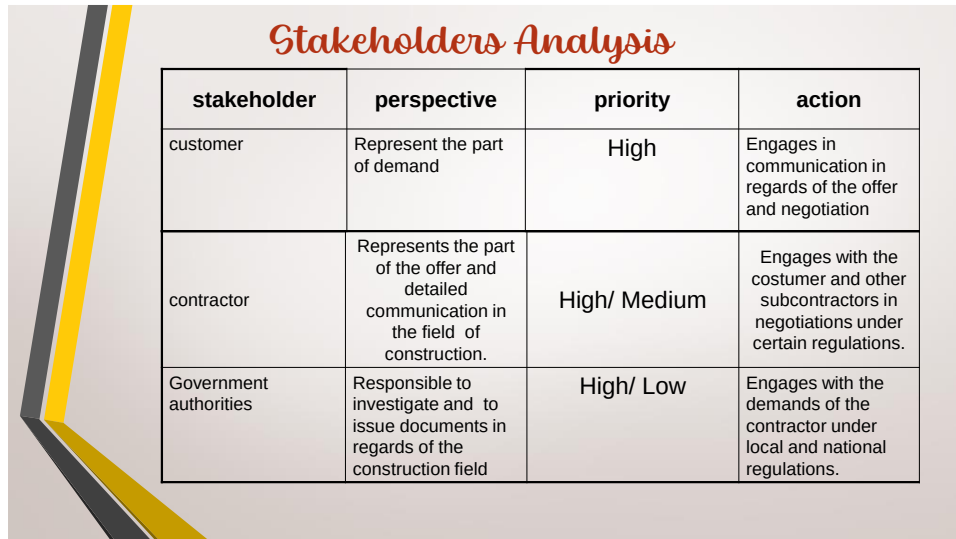
Project deliverables

- A 4000 square foot finish home
- Exterior/ Interior finish using environmental preferable material
- Integrated, intelligent control system

The success of this project is to Identifying the essential issue that the project can tackle and whether task will convey a solution to that problem. The identification of the scope will defining the depth and breadth of the project, deliverables by giving the product or service to provide.

During this step, the objective for the project will determine whether the project is feasible, and identify the major deliverables for the project.

Slide 4



stakeholder	perspective	priority	action
customer	Represent the part of demand	High	Engages in communication in regards of the offer and negotiation
contractor	Represents the part of the offer and detailed communication in the field of construction.	High/ Medium	Engages with the costumer and other subcontractors in negotiations under certain regulations.
Government authorities	Responsible to investigate and to issue documents in regards of the construction field	High/ Low	Engages with the demands of the contractor under local and national regulations.

The stakeholder analysis is refer to the identification of the group that are involved in the project in manner to ensure their communication needs are known by the project term. The analysis of the stakeholders for this project are three main groups:

- The customer
- The contractor,
- Government Authorities

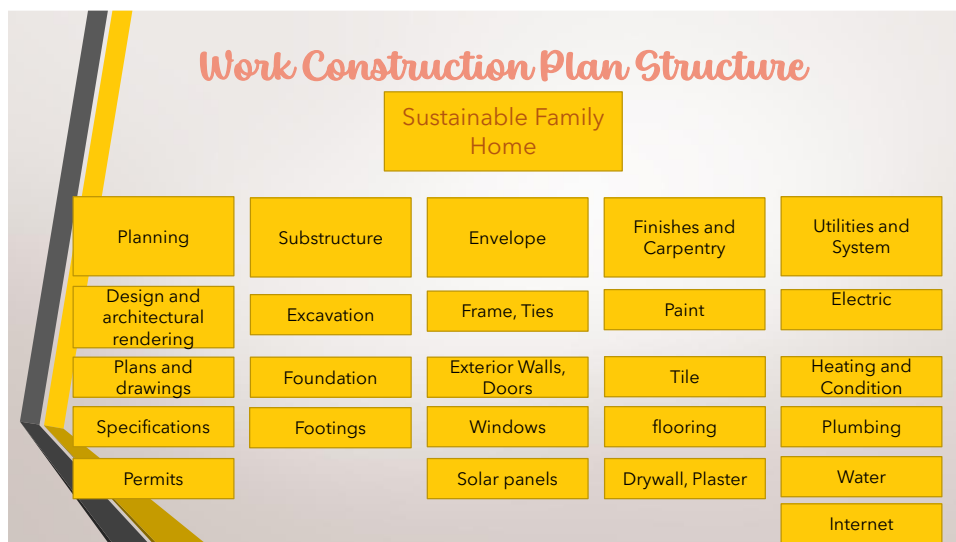
Finding the project stakeholders by figure out whom the project affects and what needs may be needed

The owner, project manager and the contractor will update one another as each subtask is complete, if any activities are delay, increased cost. The project manager will keep apprise the project from the team works, the general contractor will be responsible to all levels of the project to resolve issues as soon as possible. The Government authorities will provide written copies of each inspection milestone as it accomplished to document the construction phase

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Slide 6



Slide 7



Costs/ Resources use and Benefits of the House

WBS	TASK NAME	DURATION	RESOURCES	COST
1	Sustainable Home construction project	13 months		£550.000
1.1	Project Initiation	1 week		£15.000
1.2	Project Planning	1 month		£20.000
1.2.1	Design	1 month		£18.000
1.2.2	Permitting	3 weeks	Government Authorities, Permit Fees	£3.000
1.3	Executing	9 months		£117.040
1.3.1	Foundation	1 month	Foundation material	£14,053
1.3.2	Landscaping	1 month	Landscaping material	£19.700
1.4	Monitoring and control	15 months		£2.830
1.5	Closing	1 week		£1.720
1.5.1	Final inspection and acceptance by owner	1 week	Customer, project manager	£1.720

The sustainable Home construction project is based on a budget not to exceed £50.000 after negotiating and arriving to an agreement with the subcontractors , managers and the local authority regulations.

The resources come from recyclable and natural sources (hydro energy, solar energy and wind power) as it benefits the environment and the cost throughout the future of renewable energy.

The advantages of a deliverable-oriented WBS is as following:

- It simplifies the process of cost estimating.
- It allows you to see the total work scope.
- It clarifies the relationships among elements.
- You can use it during all project phases.
- It's easier to modify as your project changes.
- It supports earned value management.

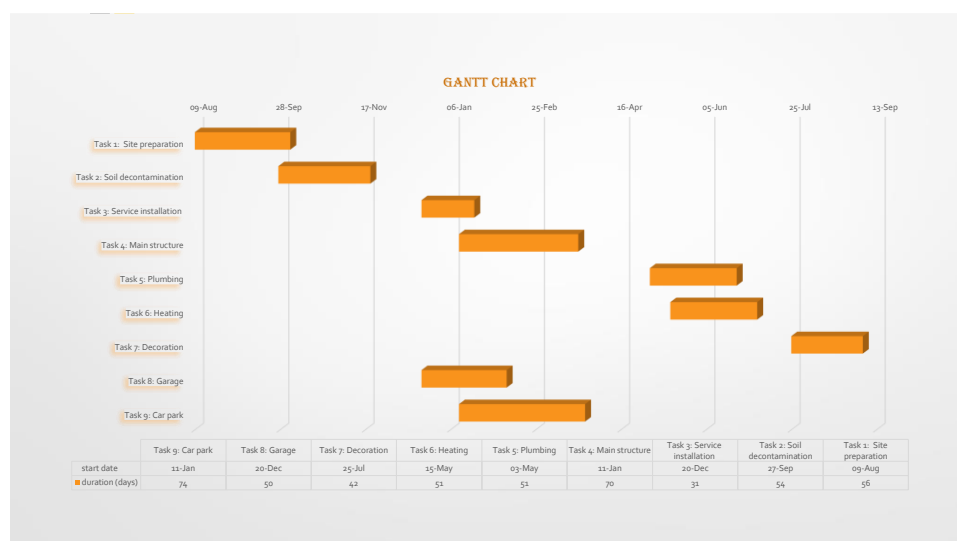
Project schedule

- To keep work on track, must organize the team members, manage timelines, and make sure the work is done according to the original plan.

To keep work on track, organize team members, manage timelines, and make sure the work is done according to the original plan.

- Communicating with team members, clients, and upper management to provide updates to project stakeholders at all levels
- Monitoring quality of work by ensure that team members are meeting their time and quality goals for tasks
- Managing budget. Keep monitor spending and keeping the project on track in terms of assets and resources

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	IMPORTANCE	LIKELIHOOD
	IMPACT	PROBABILITY
Failure to comply with contractual quality requirements	H	M
Design process takes longer than anticipated	M	M
Laws and local standards change	L	H
New alternatives required to avoid, mitigate or minimize environmental impact	M	L
Delayed deliveries	M	H

Risk Analysis

There are also risks of losses of time and money due to: delays and disputes (possession of site, late supply of information, inefficient execution of work, etc.), poor direction, supervision or communication; delays in payment; and delay in resolving disputes.

Taking a Risk assessment are widely used in construction as a means of controlling specific health and safety risks that have been identified such as; lifting operations, demolition or dismantling, working at height (such as work on roofs), installing equipment, and the use of plant. A method statement helps manage the work and ensures that the necessary precautions have been communicated to those involved.

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Communication strategy

Project Communication Plan				
Deliverable	Audience	Frequency	Method	Provider
Project status reports	Homeowner	Weekly	Email and hardcopy	Project Manager
General contractor status reports	Project Manager, Project Team	Bi-weekly	Email	General Contractor
Subcontract status reports	Project Manager, Project Team, Govern Authorities	Bi- weekly	Email	Sub-contractor
Issues reports	Project Team	Weekly	Email	General/ Sub Contractor
Escalation reports	Project Manager	When request	In person and hardcopy	Project Team
Approved change request	Homeowner	When request	Email and hardcopy	Project Manager
Change request				

- Analysing project performance: Determine whether the project's goals were met (tasks completed, on time and on budget) and the initial problem solved using a prepared checklist.
- Analysing team performance and evaluate how team members performed, including whether they met their goals along with timeliness and quality of work
- Documenting project closure: Make sure that all aspects of the project are completed with no loose ends remaining and providing reports to key stakeholders
- Conducting post-implementation reviews by conduct a final analysis of the project, taking into account lessons learned for similar projects in the future
- Accounting for used and unused budget allocate remaining resources for future projects

Once the team has completed work on the project, it must provide a final deliverables, release project resources, and determine the success of the project. There are still important things to do, including evaluating what did and did not work with the project.

Those will be prepared to take everything you've learned and implement it for your next project.

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