

**SCOPE MANAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**

**TABLE OF CONTENTS**

INTRODUCTION ..... 2  
SCOPE MANAGEMENT APPROACH..... 2  
ROLES AND RESPONSIBILITIES ..... 3  
SCOPE DEFINITION ..... 4  
PROJECT SCOPE STATEMENT ..... 4  
WORK BREAKDOWN STRUCTURE ..... 4  
SCOPE VERIFICATION..... 5  
SCOPE CONTROL ..... 5

## **INTRODUCTION**

The Scope Management Plan provides the scope framework for this project. This plan documents the scope management approach; roles and responsibilities as they pertain to project scope; scope definition; verification and control measures; scope change control; and the project's work breakdown structure. Any project communication which pertains to the project's scope should adhere to the Scope Management Plan.

This project is for designing and building a single-family dwelling. Some external resources and outsourcing are anticipated for this project.

## **SCOPE MANAGEMENT APPROACH**

For this project, scope management will be the responsibility of the Project Manager. The scope for this project is defined by the Scope Statement, Work Breakdown Structure (WBS) and WBS Dictionary. The Project Manager, along with the Core Team of SMEs will establish and approve documentation for measuring project scope, which includes deliverable quality checklists and work performance measurements. Proposed scope changes may be initiated by the Project Manager, Stakeholders or any member of the project team. All change requests will be submitted to the Project Manager who will then evaluate the requested scope change. Upon acceptance of the scope change request the Project Manager will submit the scope change request to the Change Control Board for acceptance. Upon approval of scope changes by the Change Control Board the Project Manager will update all project documents and communicate the scope change to all stakeholders. Based on feedback and input from the Project Manager and Core Team members, the Customer is the primary agent for accepting the final project deliverables and complete final product.

## ROLES AND RESPONSIBILITIES

The Project Manager, and team will all play key roles in managing the scope of this project. As such, the project manager and team members, and Customer must be aware of their responsibilities in order to ensure that work performed on the project is within the established scope throughout the entire duration of the project. The table below defines the roles and responsibilities for the scope management of this project.

Name	Role	Responsibilities
TBD	Customer	<ul style="list-style-type: none"> <li>- Accept project deliverables</li> <li>- Accept final product</li> </ul>
TBD	Project Manager	<ul style="list-style-type: none"> <li>- Measure and verify project scope</li> <li>- Facilitate scope change requests</li> <li>- Facilitate impact assessments of scope change requests</li> <li>- Organize and facilitate scheduled change control meetings</li> <li>- Communicate outcomes of scope change requests</li> <li>- Update project documents upon approval of all scope changes</li> </ul>
TBD	Liaison to CCB	<ul style="list-style-type: none"> <li>- Measure and verify project scope</li> <li>- Validate scope change requests</li> <li>- Participate in impact assessments of scope change requests</li> <li>- Communicate outcomes of scope change requests to team</li> <li>- Facilitate team level change review process</li> </ul>
TBD	Team Members	<ul style="list-style-type: none"> <li>- Participate in defining change resolutions</li> <li>- Evaluate the need for scope changes and communicate them to the project manager as necessary</li> </ul>

**Table 1.1, Scope Management Roles and Responsibilities**

## **SCOPE DEFINITION**

The scope for this project was defined through a comprehensive requirements collection process. First, a requirements collection workshop was conducted with key stakeholders. From the input gathered, the project team used the requirements management plan to develop the project requirements documentation, and the requirements traceability matrix for what the project must accomplish.

The project description and deliverables were developed based on the requirements collection process and input from subject matter experts. This process of expert judgment provided feedback on the most effective ways to meet the requirements of the project.

## **PROJECT SCOPE STATEMENT**

The project Scope Statement provides a detailed description of the project, deliverables, constraints, exclusions, assumptions, and acceptance criteria. Additionally, the scope statement includes what work should not be performed in order to eliminate any implied but unnecessary work which falls outside the of the project's scope.

This project includes all the deliverables described [at the general level] in the Scope Statement.

This project will be accepted once each of the major deliverables has been successfully completed, tested by the Project Team, and accepted by the Customer.

This project does not include any items mentioned in the list of Exclusions.

**CONSTRAINTS:** Only internal personnel, and personnel from the contracted vendors, may be used for this project. Additionally, the project is not to exceed 330 days in duration, or \$450,000 in spending.

**ASSUMPTIONS:** Assumptions for this project are that support will be provided by the project sponsor and all department managers and that adequate internal resources are available for the successful completion of this project.

## **WORK BREAKDOWN STRUCTURE**

In order to effectively manage the work required to complete this project, it will be subdivided into individual work packages which will not exceed 40 hours of work. This will allow the Project Manager to more effectively manage the project's scope as the project team works on the tasks necessary for project completion. The project is broken down into three phases: the Site Preparation and Foundation Phase; the Structural Phase; and the Finishing Phase. Each of these phases is then subdivided further down to work packages which will require no more than 40 hours of work and no less than 4 hours of work (see Work Breakdown Structure [WBS]).

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

Level	WBS Code	Element Name	Description of Work	Deliverables	Budget	Resources

*Sample WBS Dictionary*

## **SCOPE VERIFICATION**

As this project progresses the Project Manager will verify interim project deliverables against the original scope as defined in the scope statement, WBS and WBS Dictionary. Once the Project Manager verifies that the scope meets the requirements defined in the project plan, the Project Manager and Customer will meet for formal acceptance of the deliverable. During this meeting the Project Manager will present the deliverable to the Project Customer for formal acceptance. The Project Customer will accept the deliverable by signing a project deliverable acceptance document. This will ensure that project work remains within the scope of the project on a consistent basis throughout the life of the project.

## **SCOPE CONTROL**

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

If a change to the project scope is needed the process for recommending changes to the scope of the project must be carried out. Any project team member or Stakeholder can request changes to the project scope. All change requests must be submitted to the Project Manager in the form of a project change request document. The Project Manager and Team will then review the suggested change to the scope of the project, and perform an impact assessment of the change

The Project Manager will then formally submit the change request to the Change Control Board. If the Change Control Board approves the scope change, the Project Manager and Team will update all project documents and communicate the scope change to all project team members and stakeholders.



**REQUIREMENTS MANAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**



## **TABLE OF CONTENTS**

INTRODUCTION .....	9
REQUIREMENTS MANAGEMENT APPROACH.....	9
CONFIGURATION MANAGEMENT.....	10
REQUIREMENTS PRIORITIZATION PROCESS .....	10
PRODUCT METRICS .....	11
REQUIREMENTS TRACEABILITY MATRIX .....	11

## INTRODUCTION

The purpose of this Requirements Management Plan is to establish a common understanding of how requirements will be identified, analyzed, documented, and managed for the Project.

Requirements will be divided into two categories: project requirements and product requirements. Project requirements are the requirements identified to meet the needs of the project and ensure its completion and readiness to hand over to operations. These consist mostly of administrative and logistical requirements. Product requirements are the requirements identified to meet the technical specifications of the product being produced as a result of the project. These will consist of requirements to ensure that performance specifications are met, component properties are properly documented, and construction thresholds are identified and documented.

The inputs for the requirements management plan include the Project Charter and Stakeholder Register.

## REQUIREMENTS MANAGEMENT APPROACH

The approach we will use for requirements management for the project will be broken down into four areas: requirements identification, requirements analysis, requirements documentation, and ongoing requirements management.

**Requirements Identification:** The project team will facilitate various methods to collect requirements which may include: interviews, focus groups, facilitated workshops, group creativity techniques, questionnaires and surveys, etc. These will be conducted among the project stakeholders to ensure all requirements are captured.

**Requirements Analysis:** The project team will analyze requirements to determine if they fall into project or product categories. Additionally, this analysis will determine if the requirements can logically be translated into work packages and / or schedule activities. Accountability and priority for each requirement will also be determined as part of the analysis. Finally, acceptance criteria must be determined for all requirements, from which quality metrics can be derived. The metrics will be used in the Quality area to determine when a requirement has been fulfilled to an acceptable level.

**Requirements Documentation:** Once requirements have been identified and analyzed, they will be documented and assigned to accountable personnel. These requirements will be used to develop the project Scope Statement, and the project team will determine what methodologies to use to track and report on the status of each requirement. All requirements will also be added to the Requirements Traceability Matrix, which will be used throughout the project, as well as during the formal project closure process.

**Ongoing Requirements Management:** Throughout the project lifecycle, the project manager will ensure all team members are reporting requirement status and raising any issues or concerns with their assigned requirements as appropriate. As the project matures there may be situations

in which requirements must change or be altered in some way. The project team will follow the established change control process in order to propose any changes to requirements and receive approval from the change control board. Ongoing requirements management also includes reviewing the completion status of all requirements as part of project closure.

## CONFIGURATION MANAGEMENT

For the Project, the Requirements Management Plan will synchronize with the configuration management activities outlined in the Configuration Management Plan. Key items include documentation/version control and change control:

**Documentation and Version Control:** All documentation related to components of the deliverables will be loaded into the Configuration Management Database (CMDB) as the central repository for the Project. Appropriate permissions will be granted to the project team for editing and revising documentation. Any proposed changes to the documents that do not result in changes to fundamental project plans or baselines will be reviewed and approved by the designated Team Member. When the documentation is edited, the project manager and Team will be responsible for communicating the change to appropriate stakeholders.

**Change Control:** Any proposed changes to project requirements must be carefully considered before approval and implementation. Such changes are likely to impact project scope, time, and/or cost, perhaps significantly. Any proposed changes to fundamental project plans or baselines will be reviewed by the CCB. The role of the CCB is to determine the impact of the proposed change on the project, seek clarification on proposed change, and either approve or reject requested changes. The project manager and Team are responsible for documenting and implementing any approved changes in project scope, as part of the change review and approval process.

## REQUIREMENTS PRIORITIZATION PROCESS

The project manager will facilitate stakeholder meetings in order to establish priorities for all project requirements. This project will use a three-level scale in order to prioritize requirements. The chart below illustrates these levels and defines how requirements will be grouped:

Priority Level	Definition
High	These requirements are mission critical. They are required for project/product success or for progression to next project phase
Medium	These requirements support product/process operations but can be completed under the next product release
Low	These requirements are quality and/or functional enhancements and are not desirable if time and resources permit

As the project moves forward and additional constraints are identified or there are issues with resources, it may be necessary for the project team and stakeholders to meet in order to determine what requirements must be achieved, which can be re-baselined, or which can be

omitted. These determinations will be made in a collaborative effort based on the priorities of the requirements and which level they are assigned in accordance with the chart above. As any changes in requirements are made, all project documentation must be updated, and updates must be communicated to the appropriate stakeholders.

## **PRODUCT METRICS**

Product metrics for the project will be based on cost, quality, and performance requirements as outlined in the various project documents. In order to achieve project success, the final product must meet or exceed all established metrics.

Cost:

- Total Cost for the Project
- Total Cost for all Contracted Services
- Cost for all Materials
- Cost for all Personnel Payroll

Quality:

- Related to foundation:
- Related to frame:
- Related to exterior:
- Related to interior:
- Related to final finishing:

Performance:

- Related to electrical wiring:
- Related to plumbing:
- Misc.:

## **REQUIREMENTS TRACEABILITY MATRIX**

A requirements traceability matrix will be prepared for, and utilized in, this project. The purpose of the requirements traceability matrix is to ensure all product requirements are either completed, or documented as not included in the Project Scope. This matrix provides a thread from all product requirements through completion, testing, and acceptance. Related documents and Project Plan references are contained in the Project Configuration Management Plan. Any approved changes in project requirements will result in changes to the traceability matrix. Based on impacts of the approved changes, the Project Manager will make the necessary changes to the matrix and communicate those changes to appropriate stakeholders. A sample requirements traceability matrix is included as a separate document in this Project Management Plan.

**REQUIREMENTS TRACEABILITY MATRIX**  
**HOUSE CONSTRUCTION PROJECT**

## Requirements Traceability Matrix

Sample Project R.T.M.

<b>Project: House Construction</b>					
<b>Source of Req.</b>	<b>Description</b>	<b>Requested:</b>	<b>Id'ed as Not Required:</b>	<b>Completed:</b>	<b>Accepted by Customer:</b>
G. White	3 Bedrooms	8/3/2012			
T. Hall	2 ½ Bathrooms	8/12/2012			
E. Rastrum	Indoor Pool	8/6/2012			
H. Halifax	Foam Insulation	8/3/2012			
R. Ansel	Cupola	8/14/2012			
W. Angstrom	Finished Basement	8/5/2012			
L. Phantleroy	4-Car Garage	8/12/2012			

**SCHEDULE MANAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**

## **TABLE OF CONTENTS**

INTRODUCTION .....	2
SCHEDULE MANAGEMENT APPROACH.....	2
SCHEDULE CONTROL .....	3
SCHEDULE CHANGES AND THRESHOLDS.....	3



## **INTRODUCTION**

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

## **SCHEDULE MANAGEMENT APPROACH**

Project schedules will be created using MS Project 2007, starting with the deliverables identified in the project's Work Breakdown Structure (WBS). Activity definition will identify the specific schedule activities which must be performed to complete each work package. Activity sequencing will be used to determine the order of schedule activities, based on identified relationships between project activities. Resource estimating will be used to identify the resources needed to complete each of the schedule activities. Activity duration estimating will be used to calculate the number of work periods required to complete schedule activities.

Once a preliminary schedule has been developed, it will be reviewed by the project team, and the specific needed resources will start to be acquired and assigned to project tasks. The project team will continue to review the resource assignments, durations, and schedule sequencing. The initial scheduling effort will result a Milestone Chart [which will also serve as the basis for the Schedule Baseline, as well as the first Project [Schedule] Network Diagram (PND).

The significant Milestones for this project are depicted in the Schedule Baseline [Milestone Chart].

Roles and responsibilities for schedule development are as follows:

The project manager will be responsible for facilitating work package definition, sequencing, and estimating duration and resources with the project team. The project manager will also supervise the creation of the project schedule using MS Project 2007, and validate the schedule with the project team, and certain key stakeholders. The project manager will approve the [relatively static] schedule baseline, and the [dynamically evolving] project schedule.

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

## **SCHEDULE CONTROL**

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

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

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

The project sponsor will maintain awareness of the project schedule status, primarily for the purpose of on-going budget planning and resourcing.

## **SCHEDULE CHANGES AND THRESHOLDS**

If any member of the project team determines that a change to the schedule is necessary, the project manager and team will meet to review and evaluate the change. The project manager and project team must determine which tasks will be impacted, variance as a result of the potential change, and any alternatives or variance resolution activities they may employ to see how they would affect the scope, schedule, and resources. If, after this evaluation is complete, the project manager determines that any change will exceed the established boundary conditions, then a schedule change request must be submitted.

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

- The proposed change is estimated to impact a milestone on the Milestone Chart by 10% or more.
- The change is estimated to increase the duration of the overall baseline schedule by 10% or more.

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

Once the change request has been reviewed and approved, the project manager is responsible for adjusting the schedule and communicating all changes and impacts to the project team, and appropriate stakeholders. The project manager must also ensure that all change requests are documented in the Change Log.

**COST MANAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**

## **TABLE OF CONTENTS**

INTRODUCTION .....	2
COST MANAGEMENT APPROACH .....	2
MEASURING PROJECT COSTS .....	2
REPORTING FORMAT .....	3
COST VARIANCE RESPONSE PROCESS .....	3
COST CHANGE CONTROL PROCESS .....	3
PROJECT BUDGET .....	3

## INTRODUCTION

The Project Manager will be responsible for managing and reporting on the project's cost throughout the duration of the project. During the monthly project status meeting, the Project Manager will meet with management to present and review the project's cost performance for the preceding month. Performance will be measured using earned value. The Project Manager is responsible for accounting for cost deviations and presenting the Project Sponsor with both the initial estimated budget [BAC], and a Time-Phased Spending Plan. The Project Sponsor has the lead responsibility for obtaining the funding needed for project accomplishment.

## COST MANAGEMENT APPROACH

Costs for this project will be estimated and managed based on the Work Breakdown Structure (WBS). Control Accounts (CA) will be created within the WBS to track costs. Earned Value calculations for the CA's will measure and manage the financial performance of the project. Activity cost estimates, once derived, are aggregated up into the work packages, then up into the Control Accounts, and finally up into the entire project Cost Baseline. For Earned Value Analysis, credit for work will be assigned at the activity level. Work started on activities will attribute that activity with 50% credit; whereas, the remaining 50% is credited upon completion of all work defined in that activity. Costs will be rounded to the nearest dollar and work hours rounded to the nearest whole hour.

Cost variances of +/- 5% in the cost performance index will change the status of the cost to cautionary in the project status reports. Cost variances of +/- 10% in the cost performance index will change the status of the cost to an alert stage in the project status reports. This will require corrective action from the Project Manager in order to bring the cost performance index below the alert level. Corrective actions may require a project change request.

## MEASURING PROJECT COSTS

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

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

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

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

## **REPORTING FORMAT**

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

## **COST VARIANCE RESPONSE PROCESS**

The Control Threshold for this project is a CPI less than 0.8. If the project reaches this Control Threshold, a Cost Variance Corrective Action Plan is required. The Project Manager will present this Plan to key stakeholders, including the Project Sponsor, with options for corrective actions. The Cost Variance Corrective Action Plan will detail the actions necessary to bring the project back within budget and the means by which the effectiveness of the actions in the plan will be measured. Upon adoption of the Cost Variance Corrective Action Plan, it will become a part of the project plan, and the plan will be updated to reflect the corrective actions.

## **COST CHANGE CONTROL PROCESS**

The cost change control process will follow the established project change request process. Approvals for changes to the overall project Cost Baseline must be approved by the project sponsor.

## **PROJECT BUDGET**

The budget for this project is detailed in the Cost Baseline documents. Costs for this project are presented in various categories:

Personnel / Payroll Costs

Material Costs

Contractor Costs

Total Project Cost

Contingency Reserves [calculated and reported as part of activity costs]

**QUALITY MANAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**

## **TABLE OF CONTENTS**

INTRODUCTION .....	2
QUALITY MANAGEMENT APPROACH .....	2
QUALITY REQUIREMENTS / STANDARDS .....	3
QUALITY ASSURANCE.....	4
QUALITY CONTROL.....	6
QUALITY CONTROL / QUALITY ASSURANCE MEASUREMENTS.....	7



## **INTRODUCTION**

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

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

## **QUALITY MANAGEMENT APPROACH**

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

Product quality for the project will be defined by the Project Team, guided by the company's current standards for quality management. The focus is on the project's deliverable and the standards and criteria being used will ensure the product meets established quality standards and customer satisfaction.

Process quality for the project will focus on the processes by which the project deliverables will be produced, inspected, and accepted. Establishing process quality standards will ensure that all activities conform to an organizational standard which results in the successful delivery of the product.

The project team will work with the company's Quality Group to define and document all project-specific quality standards for both product and processes. All quality documentation will become part of the Project Plan, and will be transferred to the OPA Librarian at the PMO upon the successful completion of the project.

Metrics will be established and used to measure quality throughout the project life cycle for the product and processes. The company's Quality Group will work with the project team to define these metrics, conduct measurements, and analyze results. These product and process measurements will be used, along with other metrics, as criteria in determining the success of the project. They will be periodically presented to key stakeholders. Metrics will include:

- Process performance
  - Cost efficiency
  - Schedule efficiency
  - Resource utilization efficiency
  - Minimization of material waste
- Product quality
  - Physical appearance
  - Structural strength
  - Results of Electrical Wiring inspections
  - Results of Plumbing inspections
  - Other miscellaneous factors
- Customer Satisfaction (as reflected in customer surveys)

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

## **QUALITY REQUIREMENTS / STANDARDS**

### ***Product Quality:***

The product quality standards and requirements will be determined by the project team and quality group. These standards will be based on the company's documented standards. There will be specific quality standards identified which will reflect the documented organizational standards.

The project team will document all identified quality standards into the project plan, and incorporate quality-related information into the Work Performance Reports presented to stakeholders.

Quality inspections will be conducted on the deliverables identified in the WBS, at pre-determined intervals. Deliverables that pass these inspections will be designated as "verified deliverables". They will then be inspected a second time, along with the Project Customer, in the Scope Validation processes.

### ***Process Quality:***

The process quality standards and requirements will be determined by the project team and quality group. Many of these standards will be based on existing company process standards. Additionally, there will be project-specific process quality standards determined and established. The project team will work with the quality group to establish acceptable standards, and to

document these standards for incorporation into process documents and the project plan. These standards will also be used in the preparation of Work Performance Reports for stakeholders.

Process metrics will be determined and measured for all work conducted by contracted vendors, as well as for the internal Project Team. The Team will work with vendors to establish, measure, and analyze these process metrics. The Team will collaborate closely with vendors to ensure compliance with the process metrics, as part of the overall quality assurance program for the project.

## **QUALITY ASSURANCE**

The quality assurance of the Project focuses on the processes used to produce the identified deliverables.

In order to ensure quality, an iterative quality process will be used throughout the project life cycle. This iterative process includes measuring process metrics, analyzing process data, and continuously improving the processes.

The Project Manager and the project team will perform assessments at planned intervals throughout the project to ensure all processes are being correctly implemented and executed. Key performance metrics for the deliverables will be documented in the Quality Metrics documentation, and the derived Quality Checklists.

The table below is an example of the type of quality assurance metrics documentation that may be used for this Project.

<b>Process Action</b>	<b>Acceptable Process Standards</b>	<b>Assessment Interval</b>
Laser leveling of frame components	<ul style="list-style-type: none"> <li>- Before installation of each component</li> <li>- After installation of each component</li> <li>- Upon completion of each major section</li> </ul>	Daily during framing
Anchoring of horizontal beams	<ul style="list-style-type: none"> <li>- Using approved brackets</li> <li>- Done before any weight applied</li> <li>- Strength tested upon completion</li> </ul>	Daily during framing
Voltage testing of electrical circuits	<ul style="list-style-type: none"> <li>- Tested by installer</li> <li>- Tested by master electrician</li> <li>- Re-Tested by code compliance agent</li> </ul>	Daily during installation

The quality manager assigned by the Project Manager for this project will provide overall quality management for the project. This will include: conducting process audits on a defined schedule, monitoring process performance metrics, and assuring all processes comply with project and organizational standards. If discrepancies are found, the quality manager will meet with the Project Manager and review the identified discrepancies.

The Project Manager will schedule regularly occurring project, management, and document reviews. In these reviews, an agenda item will include a review of project processes, any

discrepancies and/or audit findings from the quality manager, and a discussion on process improvement initiatives.

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

## QUALITY CONTROL

The quality control of the project focuses primarily on the product and the acceptable standards and performance. The quality performance standards for the Project are in accordance with the organizational standards of performance. There are project-specific quality standards which will be established specifically for the deliverables identified in the WBS.

Quality metrics will be derived and documented. They will be used in quality inspections, and for some deliverables, in performance testing. Additionally, physical measurements will be conducted on certain deliverables, to ensure compliance with established quality standards.

The table below is an example of the type of documentation that will be prepared, related to the performance and physical quality standards for the deliverables of the Project.

<b>Product</b>	<b>Physical/Performance Standards</b>	<b>Assessment Intervals</b>
Framing uprights	> 300 N/m <sup>2</sup> Tensile Strength	Per each upright section
Hot water copper tubing	1.5" +/- 0.01" diameter	Per every 5 feet of tubing
Wall insulation	3" thick "Pink Panther" approved	Per each wall section

The project team will perform quality inspections on the deliverables, to include physical measurements, as well as performance testing. They will provide the results of the inspections back to the Project Manager and quality manager. The company's quality group assist the project team with the following activities: ensuring all physical and performance standards are met for each deliverable; performing inspections; and creating or updating all documentation related to product quality.

The Project Manager will schedule regularly occurring project, management, and document reviews. In these reviews, an agenda item will include a review of: products, inspection findings, any discrepancies, and any product improvement initiatives.

It is imperative to the success of the project that all of the established physical and performance standards are met. Additionally, the Project Team will ensure that the product achieves the high level of customer satisfaction anticipated, while ensuring that the project execution stays in line with budget and resource allocations.

## QUALITY CONTROL / QUALITY ASSURANCE MEASUREMENTS

As part of the project Quality Control efforts, all deliverables must be inspected and/or tested, and must fall within the established standards and tolerances. Regarding the project's Quality Assurance program, all Project processes must be audited and evaluated for effectiveness and efficiency.

Check sheets similar to the examples below will be created and used by the project team in conducting these measurements. They will also be maintained for use as supporting documentation for the project's acceptance.

### *Quality Assurance Check Sheet*

Audit #	Date	Process Assessed	Required Value	Actual Value	Acceptable? (Y/N)	Recommendation	Date Resolved

### *Quality Control Check Sheet*

Inspection #	Date	Item Measured	Required Value	Actual Value	Acceptable? (Y/N)	Recommendation	Date Resolved

**RESOURCE MANAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**

## **TABLE OF CONTENTS**

INTRODUCTION .....	2
ROLES AND RESPONSIBILITIES .....	3
PROJECT ORGANIZATIONAL CHARTS .....	3
STAFFING MANAGEMENT.....	4
MATERIAL RESOURCE MANAGEMENT .....	6



## INTRODUCTION

Resource management is an important part of this Project. The resource management plan is a tool which will aid in the management of this project's resource activities throughout the project until closure. The resource management plan includes:

- Roles and responsibilities of team members throughout the project
- Project organization charts
- Staffing management plan to include:
  - a. How human resources will be acquired
  - b. Timeline for resources/skill sets
  - c. Training required to develop skills
  - d. How performance reviews will be conducted
  - e. Recognition and rewards system
- Material Resources management plan to include:
  - a. How material resource needs will be determined
  - b. How material resources will be acquired
  - c. Timeline for resources

The purpose of the resource management plan is to achieve project success by ensuring the appropriate resources are acquired. For material resources, this involves the types and amounts of equipment and supplies, and the timing of when they are needed. For human resources, this involves the following activities: identifying and acquiring personnel with the necessary skills, providing team members with any supplementary training needed, establishing and implementing team building strategies, and effectively managing team activities.

## ROLES AND RESPONSIBILITIES

The roles and responsibilities for the Project are essential to project success. All team members must clearly understand their roles and responsibilities in order to successfully perform their portion of the project. For this project, the project team roles and responsibilities will be established and documented in the Project Team Organization Chart, and the Project Team Position Descriptions. The responsibilities for some key positions are specified below.

**Project Manager (PM), (1 position):** responsible for the overall success of the Project. The PM must authorize and approve all project expenditures. The PM is also responsible for approving that work activities meet established acceptability criteria and fall within acceptable variances. The PM will be responsible for reporting project status in accordance with the communications management plan. The PM will evaluate the performance of all project team members and communicate their performance to functional managers. The PM is also responsible for acquiring human resources for the project through coordination with functional managers, and for acquiring necessary material resources. The PM must possess the following skills: leadership/management, budgeting, scheduling, and effective communication.

**Training Lead (TL), (1 position):** The TL is responsible for providing any additional or specialized training needed by Team Members. The TL will coordinate training times/locations with each department’s training advocate. The TL will provide training status to the PM in accordance with the project communications management plan.

## PROJECT ORGANIZATIONAL CHARTS

A RACI chart will be created for the project, to show the relationship between project tasks and team members. Any proposed changes to project responsibilities must be reviewed and approved by the project manager. As changes are made, project documents will be updated and redistributed accordingly. An example of a RACI chart is shown below.

	Project Manager	Design Engineers	Construction Manager	Framing Lead	Electrical Manager	Code Enforcement Manager
Requirements Gathering	A	R	R	C	C	I
Architectural Design	R	A	C		C	I
Foundation	R	R	A			
Framing	R	R	C	A	I	
Electrical Installation	R	C	R		A	R
Plumbing Installation	R	C	A			
Roofing	R	C	A	C		

Key:

R – Responsible for completing the work

A – Accountable for ensuring task completion/sign off

C – Consulted before any decisions are made

I – Informed of when an action/decision has been made

## **STAFFING MANAGEMENT**

### **Staff Acquisition:**

For the Project, the primary Project Staff will consist of internal resources. There will also be outsourcing/contracting performed within the scope of this project. The Project Manager will negotiate with functional and department managers in order to identify and assign resources in accordance with the project organizational structure. All resources must be approved by the appropriate functional/department manager before the resource may begin any project work. The project team will not be co-located for this project and all personnel will remain in their current workspace.

### **Resource Calendars:**

The Schedule Baseline for the Project is depicted as a Milestone chart. Other schedules will be prepared, as well. Some resources are required before the project can begin, and others will be acquired as the project progresses. Resource calendars will be prepared, to record which types and amounts of personnel will be available to perform the identified schedule activities. The Human Resources calendars will be coordinated with the Material Resources calendars, to ensure that the correct individuals are on-site to utilize the specific equipment and supplies needed for the particular activities shown on the Project Schedule Network Diagrams.

### **Training:**

The training schedule for the specialized training needed for this Project will be created by the Training Lead, and approved by the Project Manager.

As training requirements are identified, those training activities will be documented in the Activity List, and the funding needed will be built into the related Activity Cost Estimates.

### **Individual Team Member Assessments:**

The project manager and senior team members will review each individual team member's assigned work activities at the onset of the project and communicate all expectations of work to be performed. Those managers will then observe each team member throughout the project to evaluate their performance in completing their assigned work. Prior to releasing the team members, the project manager will meet with the appropriate functional manager and provide feedback on employee performance.

### **Recognition and Rewards:**

Some examples of motivational incentives on this project include cross-training, and possibly monetary rewards. There are also several planned recognition and reward items for project team members.

- Upon completion of the Project, a party will be held to celebrate the success of all of the team members.
- Upon successful completion of the project, any team member who satisfactorily completed all assigned work activities on time will receive a certificate of appreciation from the Project Sponsor.
- Team members who successfully complete all of their assigned tasks will have their photo taken for inclusion in the company newsletter.

- The company will provide free family movie tickets for the top two performers on the project.

## **MATERIAL RESOURCE MANAGEMENT**

### **Material Needs Determination:**

For each schedule activity on the Activity List, the project staff will identify estimated material resource requirements [supplies, equipment, etc]. These requirements will be documented in the Activity Attributes for each activity. Once identified, the requirements for all activities associated with a given WBS Work Package will be aggregated up to the Work Package level, and documented in the WBS Dictionary section related to that Work Package.

### **Material Resources Acquisition:**

Once the necessary material resources have been identified as described above, the Project Manager and other members of the project staff will negotiate with functional and department managers to obtain any needed resources that may be available within the organization. This will be accomplished in accordance with the organization's resource management policies and procedures. The allocation of such internally available resources must be approved in writing by the appropriate functional/department manager.

Any needed material resources that are not available within the organization will be obtained using the outsourcing/contracting procedures described in the Procurement Management Plan for this project. Such procedures will be written in alignment with the organization's resource management policies and procedures, and reviewed by the organization's Procurement Department.

### **Material Resources Calendars:**

As mentioned above, the overall scheduling effort for the project includes a Schedule Baseline, depicted as a Milestone chart, and other more detailed schedule views. Some material resources may be required before the project can begin, but most will be acquired as the project progresses. Resource calendars will be prepared, to record which types and amounts of material resources will be available to perform the identified schedule activities. The Material Resources calendars will be coordinated with the Human Resources calendars, to ensure that the correct individuals are on-site to utilize the specific equipment and supplies needed for the particular activities shown on the Project Schedule Network Diagrams.

**COMMUNICATIONS MANAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**

**TABLE OF CONTENTS**

INTRODUCTION ..... 2  
COMMUNICATIONS MANAGEMENT APPROACH..... 2  
COMMUNICATIONS MANAGEMENT CONSTRAINTS ..... 2  
STAKEHOLDER COMMUNICATION REQUIREMENTS ..... 3  
ROLES ..... 3  
PROJECT TEAM DIRECTORY ..... 4  
COMMUNICATION METHODS AND TECHNOLOGIES ..... 5  
COMMUNICATIONS MATRIX..... 6  
GUIDELINES FOR MEETINGS..... 1  
COMMUNICATION STANDARDS ..... 1  
COMMUNICATION REVIEW PROCESS..... 2  
GLOSSARY OF COMMUNICATION TERMINOLOGY ..... 2

## **INTRODUCTION**

This Communications Management Plan sets the communications framework for this project. It will serve as a guide for communications throughout the life of the project and will be updated as communication needs change. This plan identifies and defines the roles of persons involved in this project. It also includes a communications matrix which maps the communication requirements of this project. A project team directory will be provided as an attachment to this plan, to provide contact information for all stakeholders directly involved in the project.

## **COMMUNICATIONS MANAGEMENT APPROACH**

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

As with most project plans, updates or changes may be required as the project progresses, and as changes are approved. Changes or updates may be required due to changes in personnel, scope, budget, or other reasons. Additionally, updates may be required as the project matures, and additional requirements are needed. The project manager is responsible for managing all proposed and approved changes to the communications management plan. Once a change is approved, the project manager will update the plan and supporting documentation and will distribute the updates to the project team and stakeholders. This methodology is consistent with the project's Change Management Plan and ensures that all project stakeholders remain aware and informed of any changes to communications management.

## **COMMUNICATIONS MANAGEMENT CONSTRAINTS**

All project communication activities will occur within the project's approved budget, schedule, and resource allocations. The project manager is responsible for ensuring that communication activities are performed by the project team and without external resources which will result in exceeding the authorized budget. Communication activities will occur in accordance with the frequencies detailed in the Communication Matrix in order to ensure the project adheres to schedule constraints.

Organizational policy states that where applicable, standardized formats and templates must be used for all formal project communications. The details of these policy requirements are provided in the section titled "Standardization of Communication" in this document.

Organizational policy also provides guidelines for the handling of confidential information [trade secrets]. The project manager is responsible for ensuring that approval is requested and obtained prior to the distribution of any confidential information regarding this project.



## **STAKEHOLDER COMMUNICATION REQUIREMENTS**

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

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

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

## **ROLES**

### **Program Manager**

The Program Manager oversees the project at the Program level, and accomplishes higher level resource management. The Program Manager is responsible for overall program costs and profitability. As such, this individual requires detailed communications.

### **Key Stakeholders**

Normally, "Stakeholders" includes all individuals and organizations who are impacted by the project. For this project we are defining a subset of the stakeholders as Key Stakeholders. These are stakeholders with whom we will communicate fairly closely. Key Stakeholders include executive management with an interest in the project, and key users identified for participation in the project.

### **Change Control Board**

The Change Control Board is a designated group which reviews submitted Change Requests, and approves or rejects such requests. Technical design documents, user impact analysis and implementation strategies are typical of the types of communication this group requires.

### **Customer**

The customer for this project will be identified before project execution begins. As the customer who will be accepting the final product of this project, they will be informed of the project status. This will include potential impacts to the delivery schedule for the final product.

## Project Manager

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

## Project Team

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

## PROJECT TEAM DIRECTORY

A Project Directory will be prepared and maintained, displaying contact information for key persons identified in this communications management plan. An example directory appears below.

Role	Name	Title	Organization/ Department	Email	Phone
Project Sponsor	L. White	VP of Construction Operations	Construction Opns.	<a href="mailto:a.white@abc.com">a.white@abc.com</a>	(555) 555- 1212
Program Manager	R. Brown	PMO Manager	PMO	<a href="mailto:b.brown@abc.com">b.brown@abc.com</a>	(555) 555- 1313
Project Manager	G. Black	Project Manager	PMO	<a href="mailto:c.black@abc.com">c.black@abc.com</a>	(555) 555- 1414
Project Stakeholders	See Stakeholder Register	See Stakeholder Register	See Stakeholder Register	See Stakeholder Register	See Stakeholder Register
Customer	J. Doe	Manager, Home Construction	Construction Opns	<a href="mailto:J.Doe@abc.com">J.Doe@abc.com</a>	(615) 555- 8121

## **COMMUNICATION METHODS AND TECHNOLOGIES**

The project team will determine, in accordance with organizational policy, the communication methods and technologies to be used. These will be based on several factors, to include: stakeholder communication requirements, available technologies (internal and external), and organizational policies and standards.

The organization maintains a SharePoint platform within the PMO, which project teams use to provide updates, archive various reports, and conduct project communications. This platform enables senior management, as well as stakeholders with compatible technology, to access project data and communications at any point in time. SharePoint also provides the ability for stakeholders and project team members to collaborate on project work and communication.

An internally accessible web site will also be established for the project. The web site will only be accessible within the local network, or through a VPN connection. Access to the website will be further controlled with a username and password. Specific stakeholders will be issued a unique username and password in order to access the web site. The project manager is responsible for ensuring all project communications and documentation are copied to the web site and that the content mirrors what is contained on the SharePoint platform.

Scheduling information will be developed and distributed using MS Project software. The project team is responsible for developing, maintaining, and communicating schedules using this software. The project schedule will be maintained on both the SharePoint platform and the project website.

Project documentation, in addition to being maintained on the SharePoint platform and project website, will be archived on the internal file server shared drive provided and maintained by the PMO. Organizational naming conventions for files and folder will be applied to all archived work.

## COMMUNICATIONS MATRIX

A Communications Matrix will be developed for the project, and maintained by the project team. An example of a Communications Matrix table identifying communications requirements is shown below.

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Documentation	Format
Kickoff Meeting	Introduce the project team and the project. Review project objectives and management approach.	<ul style="list-style-type: none"> <li>• Face to Face</li> </ul>	Once	<ul style="list-style-type: none"> <li>• Project Sponsor</li> <li>• Project Team</li> <li>• Stakeholders</li> </ul>	Project Manager	<ul style="list-style-type: none"> <li>• Agenda</li> <li>• Meeting Minutes</li> </ul>	<ul style="list-style-type: none"> <li>• Soft copy archived on project SharePoint site and project web site</li> </ul>
Project Team Meetings	Review status of the project with the team.	<ul style="list-style-type: none"> <li>• Face to Face</li> <li>• Conference Call</li> </ul>	Weekly	<ul style="list-style-type: none"> <li>• Project Team</li> </ul>	Project Manager	<ul style="list-style-type: none"> <li>• Agenda</li> <li>• Meeting Minutes</li> <li>• Project schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Soft copy archived on project SharePoint site and project web site</li> </ul>
Architectural Design Meetings	Discuss and develop technical design issues and considerations for the project.	<ul style="list-style-type: none"> <li>• Face to Face</li> </ul>	As Needed	<ul style="list-style-type: none"> <li>• Project Technical Staff</li> </ul>	Technical Lead	<ul style="list-style-type: none"> <li>• Agenda</li> <li>• Meeting Minutes</li> </ul>	<ul style="list-style-type: none"> <li>• Soft copy archived on project SharePoint site and project web site</li> </ul>
Monthly Project Status Meetings	Report on the status of the project to management.	<ul style="list-style-type: none"> <li>• Face to Face</li> <li>• Conference Call</li> </ul>	Monthly	<ul style="list-style-type: none"> <li>• PMO</li> </ul>	Project Manager	<ul style="list-style-type: none"> <li>• Slide updates</li> <li>• Project schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Soft copy archived on project SharePoint site and project web site</li> </ul>
Project Status Reports	Report the status of the project including activities, progress, costs and issues.	<ul style="list-style-type: none"> <li>• Email</li> </ul>	Monthly	<ul style="list-style-type: none"> <li>• Project Sponsor</li> <li>• Project Team</li> <li>• Stakeholders</li> <li>• PMO</li> </ul>	Project Manager	<ul style="list-style-type: none"> <li>• Project Status Report</li> <li>• Project schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Soft copy archived on project SharePoint site and project web site</li> </ul>

## **GUIDELINES FOR MEETINGS**

As meetings are an essential tool for accomplishing communications for the project, a ‘Meetings Guidelines’ document will be developed, distributed, and used by the team for planning and conducting all meetings related to the project. That document will address, among other items:

- **Meeting Agendas**
- **Meeting Minutes**
- **Action Items**
- **Meeting Chair Person**
- **Note Taker**
- **Time Keeper**
- **Parking Lot**

## **COMMUNICATION STANDARDS**

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

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

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

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

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

Project Status Reports –the standard project status report document, available on the share drive, will be used to provide project status.

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

# COMMUNICATION REVIEW PROCESS

Efficient and timely communication is the key to successful project completion. As such, it is imperative that regular reviews of the effectiveness and efficiency of project communications are conducted.

Such reviews will be incorporated into the project schedule. They will be focused on ensuring that: the correct communications are distributed effectively, any ongoing difficulties are addressed in a timely manner, and that the project stays on schedule.

The team is responsible for making any adjustments to the communications strategy that are identified as needed by these reviews.

## GLOSSARY OF COMMUNICATION TERMINOLOGY

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

**RISK MANAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**

**TABLE OF CONTENTS**

INTRODUCTION ..... 2  
TOP RISKS FOR THE PROJECT ..... 3  
RISK MANAGEMENT APPROACH ..... 3  
RISK IDENTIFICATION ..... 3  
RISK QUALIFICATION AND PRIORITIZATION..... 4  
RISK MONITORING..... 4  
RISK STRATEGIES ..... 4



## INTRODUCTION

As organizations begin new projects they begin operating in an area of uncertainty that comes along with developing new and unique products or services. By doing so, these organizations take chances which results in risk playing a significant part in any project. The purpose of the risk management plan is to establish the framework in which the project team will identify risks and develop strategies to mitigate or avoid those risks. However, before risks can be identified and managed, there are preliminary project elements which must be completed. These elements are outlined in the risk management approach.

As a result of the initial risk analysis for this project, an overall risk assessment will be made, and communicated to key stakeholders.

Risk management begins very early in the planning of the project, and continues until the project is closed. Among other factors, the following project elements are both considered in the development of the project Risk Strategy, and may be impacted by uncertainties [risks] related to the project:

- Work scope, schedule, resources, and cost elements
  - Project WBS/WBS dictionary
  - Master schedule [Gantt Chart] and detailed schedules [P.N.D.s]
  - Project cost estimates, and overall budget
  - Required and available resources
  - Performance measurement metrics
  
- Baseline thresholds
  - Scope
  - Schedule
  - Cost
  
- Baseline reporting requirements
  - Format
  - Frequency of distribution
  - Distribution recipients

Risk management involves a number of key players. Some of the key roles for the risk management for this project are listed below:

- Risk Management Roles and Responsibilities
  - Project Manager chairs the risk assessment meetings
  - Project team participates in risk assessment meetings, and members serve as meeting recorder and timekeeper
  - Key stakeholders participate in risk assessment meetings
  - Project Sponsor may participate in risk assessment meetings

## **TOP RISKS FOR THE PROJECT**

The most significant high probability and high impact risks for this project will be identified, and described in the Project Risk Report. The initial version of the Risk Report will be prepared and presented to key stakeholders as soon as possible after the Charter is signed. Updates to the Risk Report will be presented to key stakeholders regularly. The top risk categories for the project include, among other things:

**Delays in Schedule**

**Increases in Costs**

**Difficulty in Obtaining Resources**

**Problems with Quality**

## **RISK MANAGEMENT APPROACH**

The general approach to managing risks for this project includes a methodical process by which the project team identifies, scores, and ranks the various risks. The most likely and highest impact risks have proactive strategies identified for them, and then those strategies are implemented.

Risk managers will provide status updates on specific risks in project team meetings. The updated Risk Report is presented at meetings with key stakeholders.

Periodically, the project team will conduct Risk Reassessments, at which the team will review the identified risks, as well as the overall risk management process. Based on this analysis, the project team will identify any improvements that can be made to the risk management process for this, and future, projects. These improvements will be implemented immediately, and / or captured as part of the lessons learned knowledge base.

## **RISK IDENTIFICATION**

For this project, the initial risk identification effort will be conducted in the initial project risk assessment meeting. Various brainstorming methods will be used by the project team to identify risks. Some examples of methods to be used include:

**Expert Interviews**

**Facilitated Workshop Techniques**

**Historical Review of Similar Projects**

## **RISK QUALITATIVE AND QUANTITATIVE ANALYSIS AND PRIORITIZATION**

In order to determine the severity of the risks identified by the team, a probability and impact factor will be assigned to each risk. This process allows the team to prioritize risks based upon the likelihood of each, and the impact they may have on the project. The impact assessment used in this first round of ‘qualitative analysis’ is based on a subjective continuum scale. The team will utilize a probability-impact matrix to facilitate the team in moving each risk to the appropriate place on the Risk Register. The risks will be sorted by the Probability / Impact Scores, and those above a determined threshold will move to a second round of analysis.

The team will complete a second round of analysis [‘quantitative analysis’] on the risks that remain on the ‘intermediate’ list coming out of the first round of analysis. The second round of ‘quantitative analysis’ will follow the same basic approach, but using quantitative measurements for the potential impacts of those risks.

Those risks above a determined threshold on the second round of analysis will move on to the next step: risk response [strategy] planning.

## **RISK MONITORING**

The most likely and greatest impact risks have been added to the project plan to ensure that they are monitored during the time the project is exposed to each risk. During the project team meetings, the most significant risks for the current time period will be discussed. Risk monitoring will be a continuous process throughout the life of this project. As risks approach on the project schedule the project manager will ensure that the team provides the necessary status updates which include the risk status, and the documentation of the results of the risk response strategies.

## **RISK STRATEGIES**

The project team will develop proactive strategies [“responses”] to each risk that remains on the list of the most significant risks, on the Risk Register. As more risks are identified, they will be analyzed, and the team will develop proactive strategies as appropriate. These risks will also be added to the Risk Register to ensure they are monitored at the appropriate times and are responded to accordingly.

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

As soon as is practical, the team will implement the agreed-upon proactive strategy. Also, based on the identified risks and their potential impacts, reserve analysis will be completed for the duration and cost estimates for each schedule activity.

## **RISK REGISTER**

The Risk Register for this project is a log of all identified risks, their probability and impact to the project, the category they belong to, and any proactive strategy developed. The register is created through the initial project risk management meeting led by the project manager. During this meeting, the project team identifies and categorizes each risk. Additionally, the team assigns each risk a score based on the probability of it occurring and the impact it could potentially have. The Risk Register also contains any proactive strategy developed for the risks.

The team members will provide updates to the status of identified risks at project team meetings. These updates will also be used to update the Project Risk Report.

The Risk Register will be maintained as an appendix to this Risk Management Plan.

**PROCUREMENT MANAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**

**TABLE OF CONTENTS**

INTRODUCTION ..... 2  
PROCUREMENT MANAGEMENT APPROACH..... 2  
PROCUREMENT ITEM IDENTIFICATION ..... 2  
TYPES OF CONTRACTS TO BE USED ..... 3  
PROCUREMENT RISKS ..... 3  
PROCUREMENT RISK MANAGEMENT..... 3  
PROPOSAL GENERATION ..... 4  
STANDARDIZED PROCUREMENT DOCUMENTATION..... 4  
PROCUREMENT CONSTRAINTS ..... 5  
CONTRACT APPROVAL PROCESS..... 5  
DECISION CRITERIA ..... 6  
VENDOR MANAGEMENT ..... 6  
PERFORMANCE METRICS FOR PROCUREMENT ACTIVITIES..... 6

## INTRODUCTION

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

## PROCUREMENT MANAGEMENT APPROACH

The Project Manager will provide oversight and management for all procurement activities under this project. The Project Manager will work with the project team to identify all items to be procured for the successful completion of the project. The project team will review the procurement items, determine whether it is advantageous to make or buy the items, and begin the vendor selection, purchasing and the contracting process.

The Project Manager will then review the procurement list prior to submitting it for review to the contracts and purchasing department.

The individuals authorized to approve purchases for the project team include:

### Role

Project Manager

Director, Purchasing Department

Project Sponsor

## PROCUREMENT ITEM IDENTIFICATION

The team will identify and document the procurement items and/or services determined to be essential for project completion and success. The list of items/services, justification, and timeline will be developed, and used to conduct further contracting activities as described in this plan. An example Procurement Item List is provided below.

Item/Service	Justification	Needed By
Item A; Terre Cotta shingles	Needed for roofing; we do not stock this item	28 October
Item B; electrical wiring	We cannot complete this work as cost effectively as if we contract it out	15 August
Item C; plumbing	We cannot accomplish this work as quickly as a contractor can	1 September

## **TYPES OF CONTRACTS TO BE USED**

Items and services to be procured for this project will be solicited under one of the following contract types: fixed price, cost-plus, or time-and-materials. The project team will define the needed item types, quantities, services and required delivery dates. The project team will work with the contracts and purchasing department to determine the most appropriate contract type for each procurement.

The team will then solicit bids from various vendors in order to procure the items within the required time frame and at a reasonable cost.

## **PROCUREMENT RISKS**

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

- Unrealistic schedule and cost expectations for vendors
- Service capacity / capabilities of vendors
- Changes in materials and building technology
- Potential delays in shipping
- Potential quality issues [procured item/work does not meet required specifications]

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

## **PROCUREMENT RISK MANAGEMENT**

As previously stated, project risks will be managed in accordance with the project's risk management plan. However, for risks related specifically to procurement, there must be additional consideration and involvement. Project procurement efforts involve external organizations and potentially affect current and future business relationships as well as internal supply chain and vendor management operations. Because of the sensitivity of these relationships, the project team will include a designated representative from the contracting department in all dealings with contracted vendors.

Any issues concerning procurement actions or any newly identified risks will immediately be communicated to the project's contracting department point of contact, as well as the project sponsor.



## **PROPOSAL GENERATION**

For this project, the team will issue a Request for Proposal (RFP) for each procurement, in order to solicit proposals from various vendors which describe how they will meet our requirements and the cost of doing so.

All proposals should outline how the work will be accomplished, who will perform the work, vendors' experience in providing these goods, customer testimonials, background related to the work to be performed, and a breakdown of anticipated costs involved. Additionally, the vendors should submit work summaries and work schedules to show their understanding of the work to be performed and their ability to meet the project schedule.

## **STANDARDIZED PROCUREMENT DOCUMENTATION**

The procurement management process consists of many steps as well as ongoing management of all procurement activities and contracts. To aid in simplifying these tasks, the team will use standard documentation for all steps of the procurement management process. These standard documents are provided by the procurement department. They provide adequate levels of detail which allows for easier comparison of proposals, more accurate pricing, more detailed responses, and more effective management of contracts and vendors.

The PMO maintains a repository on the company's shared drive which contains standard project management and procurement documentation that will be used for this project. The following standard documents will be used, as needed, for project procurement activities:

- Standard Request for Proposal Template to include
  - Background
  - Proposal process and timelines
  - Proposal guidelines
  - Proposal formats and media
  - Source selection criteria
  - Pricing forms
  - Statement of work
- Internal source selection evaluation forms
- Non-disclosure agreement
- Letter of intent
- Contract templates
- Procurement audit form
- Procurement performance evaluation form

## **PROCUREMENT CONSTRAINTS**

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

### Schedule:

- Project schedule is critical, and the procurement activities, contract administration, and contract fulfillment must be completed within the established project schedule.

### Cost:

- Project budget is critical, and the procurement activities, contract administration, and contract fulfillment must be completed within the established project budget.

### Resources:

- All procurement activities must be performed and managed as efficiently as possible. Any additional personnel or material resources required by the vendor will not justify a change to the specifications of the signed contract.

### Quality:

- Quality specifications will be determined and will be included in the statement of work as part of the RFP. Acceptance of the work by the vendor is contingent upon the provided work meeting the quality specifications provided in the statement of work exactly.

## **CONTRACT APPROVAL PROCESS**

The first step in the contract approval process is to determine what items or services will require procurement from outside vendors. This will be determined by conducting a cost analysis on products or services which can be provided internally and compared with purchase prices from vendors.

Once cost analyses are complete and the list of items and services to be procured externally is finalized, the team will send out solicitations to outside vendors.

Once solicitations are complete and proposals have been received by all vendors the approval process begins. The process includes a review of all vendor proposals to determine which meet the criteria established by the project team and the purchasing and contracts department.

## **DECISION CRITERIA**

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

- Ability of the vendor to provide all items by the required delivery date
- Quality
- Cost
- Expected delivery date
- Comparison of outsourced cost versus in-sourcing
- Past performance

These criteria will be measured by the contracts review board and/or the Project Manager. The ultimate decision will be made based on these criteria as well as available resources.

## **VENDOR MANAGEMENT**

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

## **PERFORMANCE METRICS FOR PROCUREMENT ACTIVITIES**

The project team will establish metrics and standards for vendor performance for this project's procurement activities. An example of a performance metrics table is provided below:

Vendor	Product Quality	On Time Delivery	Documentation Quality	Delivery Costs	Delivery Time	Transactional Efficiency
Vendor #1						
Vendor #2						

- 1 – Unsatisfactory
- 2 – Acceptable
- 3 - Exceptional

**STAKEHOLDER ENGAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**

## **TABLE OF CONTENTS**

1.	INTRODUCTION .....	2
2.	IDENTIFICATION OF STAKEHOLDERS .....	2
3.	KEY STAKEHOLDERS .....	3
4.	STAKEHOLDER ANALYSIS / ENGAGEMENT STRATEGY .....	3

## **1. INTRODUCTION**

The Stakeholder Engagement Plan for the project will be used to identify and classify project stakeholders; determine stakeholder power, interest, and influence; and review the management approach and communication methodology for project stakeholders. This will allow the team to identify key influential stakeholders to solicit input for project planning and gain support as the project progresses. This will benefit the project by minimizing the likelihood of encountering competing objectives and maximizing the resources available to complete the project.

Early identification and communication with stakeholders is imperative to ensure the success of the project by gaining support and input for the project. Some stakeholders may have interests which may be positively or negatively affected by the project. By initiating early and frequent communication and stakeholder management, we can more effectively manage and balance these interests while accomplishing all project tasks.

## **2. IDENTIFICATION OF STAKEHOLDERS**

The Project Team will conduct a brainstorming session in order to identify stakeholders for the project. The brainstorming session will include the primary project team. The session will identify internal stakeholders within the organization. These stakeholders may include functional managers, operations personnel, finance personnel, and any other individual who will be affected by the project. The session will also identify external stakeholders. These may include suppliers, partner organizations, or any other individuals who reside outside of the organization. Identification of stakeholders will continue throughout the project, and many external stakeholders may not be identified until later in the project lifecycle.

The following criteria will be used to help identify stakeholders:

- 1) Will the person or their organization be directly or indirectly affected by this project?
- 2) Does the person or their organization hold a position from which they can influence the project?
- 3) Does the person have an impact on the project's resources (material, personnel, funding)?
- 4) Does the person or their organization have any special skills or capabilities the project will require?
- 5) Does the person potentially benefit from the project or are they in a position to resist this change?

Any individual who meets one or more of the above criteria will be identified as a stakeholder. Stakeholders with similar characteristics will be grouped in order to simplify communication and stakeholder management.

### 3. KEY STAKEHOLDERS

As a follow on to the effort to identify all stakeholders, the project team will identify key stakeholders who have the most influence on the project or who may be impacted the most by it. These key stakeholders are those who also require the most communication and management which will be determined as stakeholders are analyzed. Once they are identified, the Project Manager will develop a plan to obtain their feedback on the level of participation they desire, frequency and type of communication, and any concerns or conflicting interests they have.

Based on the feedback gathered by the project manager, the determination may be made to involve key stakeholders in requirements-collection meetings, focus groups, gate reviews, or other project meetings or reviews. Thorough communication with key stakeholders is necessary to ensure all concerns are identified and addressed and that resources for the project remain available.

### 4. STAKEHOLDER ANALYSIS / ENGAGEMENT STRATEGY

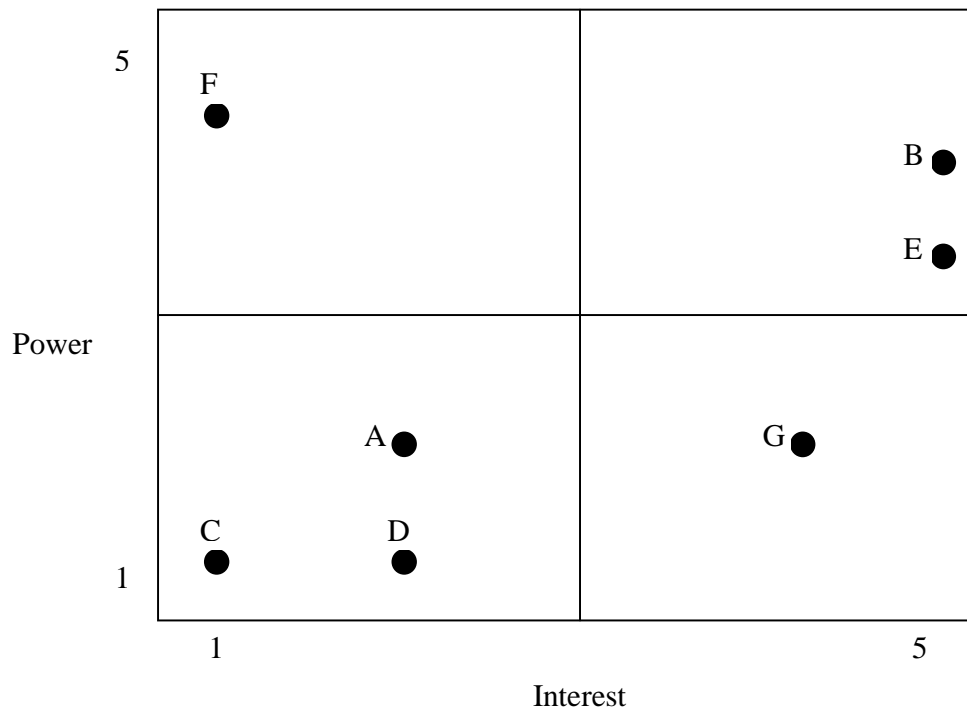
Once all stakeholders have been identified, the project team will categorize and analyze each stakeholder. The purpose of this analysis is to determine the stakeholders' level of power or influence, plan the management approach for each stakeholder, and to determine the appropriate levels of communication and participation each stakeholder will have on the project.

The project team will categorize stakeholders based on various characteristics. Once all stakeholders have been categorized, the project team will utilize various tools [such as a power/interest grid] to illustrate the potential impact each stakeholder may have on the project. Based on this analysis the project team may also complete a power/interest chart, which illustrates the anticipated level of involvement for each stakeholder.

A power/interest table will be used to establish stakeholders and their levels of power and interest. The graphical power/interest chart can be derived from this table. An example of a power/interest table appears below:

Key	Organization / Category	Name	Power (1-5)	Interest (1-5)
A	Operations	A. White	2	2
B	Finance	B. Brown	4	5
C	Supplier	C. Black	1	1
D	Supplier	D. Green	1	2
E	Customer	E. Day	3	5
F	Engineering	F. Knight	4	1
G	Quality Dept.	G. Smith	2	4

Below is an example of a power/interest chart for analyzing project stakeholders. Each letter represents a stakeholder in accordance with the key in the chart above.



Based on the power and interest analysis and chart above, stakeholders A, C, and D will require minimal management effort as they reside in the lower left quadrant of the matrix. Stakeholder F, in the upper left quadrant, must be kept satisfied by ensuring concerns and questions are addressed adequately. Stakeholder G, in the lower right quadrant, must be kept informed through frequent communication on project status and progress. Stakeholders B and E, in the upper right quadrant, are key players and must be considered in all levels of project planning and change management. Additionally, stakeholders B and E should be invited to project status meetings, and ad hoc meetings as required.

A Stakeholder Engagement Assessment Matrix [S.E.A.M.] will be used to identify the type and level of interest each key stakeholder has at the start of the project, and the level of interest and involvement the team would like to see that stakeholder display. Various formats for the S.E.A.M. are available. The Project Manager will select the format to use, and will facilitate the completion of the S.E.A.M. by core team members. The Stakeholder Engagement Assessment Matrix will be reviewed and updated throughout the project's duration in order to assess the effectiveness of the team's stakeholder engagement efforts.



Further, an Engagement Strategy matrix may be used to capture stakeholder concerns, level of involvement, and engagement strategy based on the stakeholder analysis. The Engagement Strategy matrix will be reviewed and updated throughout the project, as the concerns and interests of the various stakeholders change.

An example Engagement Strategy matrix is shown below:

Stakeholder	Concerns	Quadrant	Strategy
A	Ensuring proper handover of final product to operations team	Minimal Effort	Communicate project specifications as required
B	Resource and scheduling constraints for project	Key Player	Solicit stakeholder input, and obtain feedback on project planning. Frequent communication and addressing concerns are imperative
C	Ensuring on-time completion of deliverables	Minimal Effort	Communicate project schedule and material requirements, as well as deliverable status
D	Possible impacts on material delivery	Minimal Effort	Solicit frequent updates and develop plan for alternative supply source
E	Product quality meeting or exceeding requirements	Key Player	Communicate inspection results and performance specifications, and obtain feedback on customer requirements. Provide frequent status reports and updates.
F	Concerns regarding availability of resources needed for project completion	Keep Satisfied	Communicate resource requirements early and ensure resources are released back to functional managers when no longer required
G	Questions regarding design of building	Keep Informed	Allow technical staff to work with stakeholder to answer questions and address concerns regarding inspection results / validation

**CHANGE MANAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**

## **TABLE OF CONTENTS**

INTRODUCTION .....	2
CHANGE MANAGEMENT APPROACH .....	2
DEFINITIONS OF CHANGE .....	2
CHANGE CONTROL BOARD .....	3
ROLES AND RESPONSIBILITIES .....	3
CHANGE CONTROL PROCESS .....	4

## **INTRODUCTION**

The Change Management Plan for this Project sets expectations on how changes will be managed, what defines a change, the purpose and role of the change control board, and the overall change management process. All stakeholders will be expected to submit requests for changes to the Project in accordance with this Change Management Plan. All requests and submissions will follow the process detailed herein.

## **CHANGE MANAGEMENT APPROACH**

The Change Management approach for the Project will ensure that all proposed changes are defined, reviewed, and agreed upon so they can be properly implemented and communicated to all stakeholders. This approach will also ensure that only changes that support the Business Case and Benefits Management Plan for this project are approved and implemented.

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

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

The Change Management process has been designed to make sure this approach is followed for all changes. By using this approach methodology, the Project Team will prevent unnecessary change from occurring and focus its resources only on beneficial changes within the project scope.

## **DEFINITIONS OF CHANGE**

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

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

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

## **CHANGE CONTROL BOARD**

The Change Control Board (CCB) is the approval authority for all proposed change requests pertaining to the Project. The purpose of the CCB is to review all change requests, determine their impacts on the project risk, scope, cost, and schedule, and to approve or deny each change request. A list of the CCB members for the Project will be compiled in accordance with this plan. An example of such a list is provided below:

<b>Name</b>	<b>Position</b>	<b>CCB Role</b>
A. Smith	Director of Opns, Corporate	CCB Chair
T. White	Construction SME	CCB Member
B. Brown	Project Technical Lead	CCB Co-Chair
J. Jones	Project Operations Lead	CCB Member

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

## **ROLES AND RESPONSIBILITIES**

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

Project Sponsor:

- Approve all changes to budget/funding allocations

Project Manager:

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

Project Team/Stakeholders:

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

## **CHANGE CONTROL PROCESS**

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

- 1) Identify the need for a change (Stakeholders) – Change requestor will submit a completed change request form to the project manager.
- 2) Log change in the change request register (Project Manager) – The project manager will keep a log of all submitted change requests throughout the project's lifecycle.
- 3) Evaluate the change (Project Manager, Team, Requestor) – The project manager will conduct a preliminary analysis on the impact of the change to risk, cost, schedule, and scope and seek clarification from team members and the change requestor.
- 4) Submit change request to CCB (Project Manager) – The project manager will submit the change request, as well as the preliminary analysis, to the CCB for review.
- 5) Provide Decision on change request (CCB) – The CCB will discuss the proposed change and decide whether or not it will be approved based on all submitted information.
- 6) Implement change (Project Manager) – If a change is approved by the CCB, the project manager will update and re-baseline project documentation as necessary.

**CONFIGURATION MANAGEMENT PLAN**  
**HOUSE CONSTRUCTION PROJECT**

## **TABLE OF CONTENTS**

INTRODUCTION .....	2
ROLES AND RESPONSIBILITIES .....	2
CONFIGURATION CONTROL.....	3
CONFIGURATION MANAGEMENT DATABASE (CMDB) .....	4
CONFIGURATION STATUS ACCOUNTING .....	4
CONFIGURATION AUDITS .....	5



## **INTRODUCTION**

In order to effectively manage the Project, a coordinated Configuration Management (CM) Plan is needed. At the simplest level, configuration management is concerned with the components of the project deliverables. In essence, this is a more detailed refinement of the scope management for the project. This plan will establish CM roles and responsibilities. It will also describe how the Project team will track, implement, and communicate about configuration items (CIs), and changes to those CIs throughout the project lifecycle.

## **ROLES AND RESPONSIBILITIES**

The following roles and responsibilities pertain to the CM Plan for the Project.

### **Configuration Control Group (CCG)**

The CCG is comprised of the Configuration Tracker, Project Manager, Configuration Manager, and the Lead Engineer. The CCG is responsible for the following:

- Review and approve/reject configuration change requests
- Ensure all approved changes are added to the configuration management database (CMDB)
- Seeking clarification on any configuration items CIs as required

### **Configuration Tracker**

The Configuration Tracker is responsible for:

- Preparing materials and information for all CCG meetings
- Preparing Change Requests for any issues requiring additional scope, time, or cost

### **Project Manager**

The Project Manager is responsible for:

- Overall responsibility for all CM activities related to the project
- Identification of CIs
- All communication of CM activities to project stakeholders
- Participation in CCG meetings
- Re-baselining, if necessary, any items affected by CM changes

### **Configuration Manager**

The Configuration Manager will be provided to the Project Team by the Program Management Office (PMO). The Configuration Manager provides assistance with:

- Overall management of the CMDB
- Identification of CIs
- Providing configuration standards and templates to the project team
- Providing any required configuration training

## **Lead Engineer**

Any design-related CIs will be reviewed by the Lead Engineer. The Lead Engineer is responsible for:

- Identification of design-related CIs
- Developing any required design-related change requests
- Ensure all change requests comply with organizational templates and standards prior to submission to the Change Control Board

## **CONFIGURATION CONTROL**

The Project will use a standardized configuration control process throughout the project lifecycle in order to ensure all CIs are handled in a consistent manner and any approved changes are fully vetted regarding impact and communicated to stakeholders.

As CIs are identified by the project team, the Configuration Manager will assign a CI name and the CI will be entered into the CMDB in an “initiate” status. The Configuration Control Group (CCG) will then become responsible for the management of that CI. The CCG will have the ability [as needed] to access the CI through the CMDB, review the CI, and enter the CI back into the CMDB with any recommendations for changes or edits to the CI.

It is imperative that the CI be thoroughly reviewed before any proposed changes are submitted. The Lead Engineer will oversee any appropriate testing to be conducted. The CCG will ensure that any changes are entered into the CMDB log, and that all changes/edits are saved properly into the CMDB. The CCG is also responsible for assigning new version numbers and CMDB status for any changes made to the CI.

Any configuration changes which are identified as necessary must be captured in a change request and submitted to the CCB. The CCB will review, analyze, and approve/deny the request based on the impact, scope, time, and cost of the proposed change. If the change is approved, the project requirements / constraints will be re-baselined (if necessary) and all changes will be communicated to the project team and stakeholders by the Project Manager.

## **CONFIGURATION MANAGEMENT DATABASE (CMDB)**

The CMDB will be the centralized repository for all configuration information for the components of the project deliverables. The CMDB provides a common platform for the project team to edit, change, revise, and review CIs, and also to ensure all documents and data are updated with the latest revision.

Access to the CMDB will be granted and governed by the Project Manager, based on advice by the CM. Various levels of access to the CMDB will be granted, as needed.

The CMDB helps to ensure that members of the project team are always working with current information about the project deliverables. It also helps to maintain the history of these deliverables throughout the project lifecycle. As these deliverables are changed and updated, the CCG will be responsible for updating the status of the CI and providing new revision numbering. This numbering will be done in accordance with the organization's standard revision control numbering process.

## **CONFIGURATION STATUS ACCOUNTING**

It is important that for the project, the Project team and stakeholders have the ability to review configuration status as needed. The CCG will submit regular reports regarding configuration status to the Project team and stakeholders. These reports will consist of the following information:

- 1) Change requests
  - a. Aging - How long change requests have been open
  - b. Distribution – number of change requests submitted by various individuals
  - c. Trending – what area(s) change requests are occurring in
  
- 2) Version Control
  - a. Deliverables
  - b. CIs
  - c. Documentation

- 3) CI Reporting
  - a. CI updates
  - b. CI relationships
  - c. Incorporated Changes
  
- 4) Audits
  - a. CMDB Maintenance
  - b. Overall Configuration Management effectiveness

The CCG will ensure all CIs are consistently updated with latest release versions.

## **CONFIGURATION AUDITS**

Configuration audits will be an ongoing part of the project lifecycle. The purpose of the configuration audit is to ensure all team members are following the established procedures and processes for configuration management. Configuration audits for the project will occur periodically, and prior to the implementation of any changes to the agreed-upon project deliverables.

All configuration audits will be performed by the Configuration Manager [CM]. Throughout the project, the CM works closely with the team to ensure that all configuration processes and procedures are being followed. As part of the configuration audit, the CM will perform the following tasks:

- 1) Establish an 'audit' replica of the CMDB
- 2) Copy all of the latest data and document versions into the audit replica
- 3) Ensure all versions are correctly numbered and that version control has been performed properly
- 4) Analyze historical versions and timestamps of all data and documents to ensure all changes/edits were properly recorded and captured
- 5) Ensure all required documents are present and current
- 6) Ensure all approved Change Requests have been incorporated into the project plan, and are recorded in the CMDB

Once the audit has been performed, the CM will compile his/her audit findings, and compile a report to be presented to the Project Manager and other members of the CCG.

**PROJECT SCOPE STATEMENT  
HOUSE CONSTRUCTION PROJECT**

# TABLE OF CONTENTS

INTRODUCTION .....	8
PROJECT PURPOSE AND JUSTIFICATION .....	8
SCOPE DESCRIPTION .....	8
HIGH LEVEL REQUIREMENTS .....	8
BOUNDARIES / EXCLUSIONS .....	9
DELIVERABLES .....	9
ACCEPTANCE CRITERIA .....	9
CONSTRAINTS .....	10
ASSUMPTIONS .....	10

## **INTRODUCTION**

This Project Scope Statement serves as a baseline document for defining the scope of the House Construction Project, project deliverables, work which is needed to accomplish the deliverables, and ensuring a common understanding of the project's scope among all stakeholders. All project work should occur within the framework of the project scope statement and directly support the project deliverables. Any changes to the scope statement must be vetted through the approved Project Change Management Process prior to implementation.

## **PROJECT PURPOSE AND JUSTIFICATION**

This Project has been approved to plan, design, and build, a new home. The purpose of this project is to construct a single-family dwelling to be sold to a private home-owner. This Scope Statement will help serve to: ensure that the project will properly meet the necessary deliverables; leverage limited resources by establishing project priorities, allocate resources in an efficient manner, and provide proactive project management oversight.

## **SCOPE DESCRIPTION**

The scope of this Project is to plan, design, and build, a new single-family dwelling. This will include any and all components to make the house fully functional and comfortably livable. The scope of this project includes all requirements gathering, planning, design, and building of the home.

## **HIGH LEVEL REQUIREMENTS**

This project has been approved to meet the business need for an additional saleable home in the local neighborhood. In order to meet this business need there are several requirements which have been identified as essential to this project. The following high level requirements have been identified:

- Site preparation
- Foundation
- Framing
- Plumbing
- Electrical
- Dry-walling
- Exterior prep and painting
- Interior painting / flooring / ceilings
- Roofing

## **BOUNDARIES / EXCLUSIONS**

The Project includes all work necessary for, or associated with, the requirements stated above.

Not included in the scope of this project are:

- ongoing maintenance of the home
- any out-buildings on the property
- any landscaping
- any paving of driveways or related paved areas
- connection of any utilities

Any and all of the listed exclusions are the responsibility of entities OTHER THAN the Project Team.

## **DELIVERABLES**

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

- 1. Site preparation
- 2. Foundation
- 3. Framing
- 4. Plumbing
- 5. Electrical
- 6. Dry-walling
- 7. Exterior prep and painting
- 8. Interior painting / flooring / ceilings
- 9. Roofing

## **ACCEPTANCE CRITERIA**

Acceptance criteria have been established for the Project to ensure thorough vetting and successful completion of the project. The acceptance criteria are both qualitative and quantitative in nature. All acceptance criteria must be met in order to achieve success for this project.

The acceptance criteria for each of the specific deliverables are based on the requirements listed in the Requirements Documentation, and described in detail in the Quality Metrics documentation.



## **CONSTRAINTS**

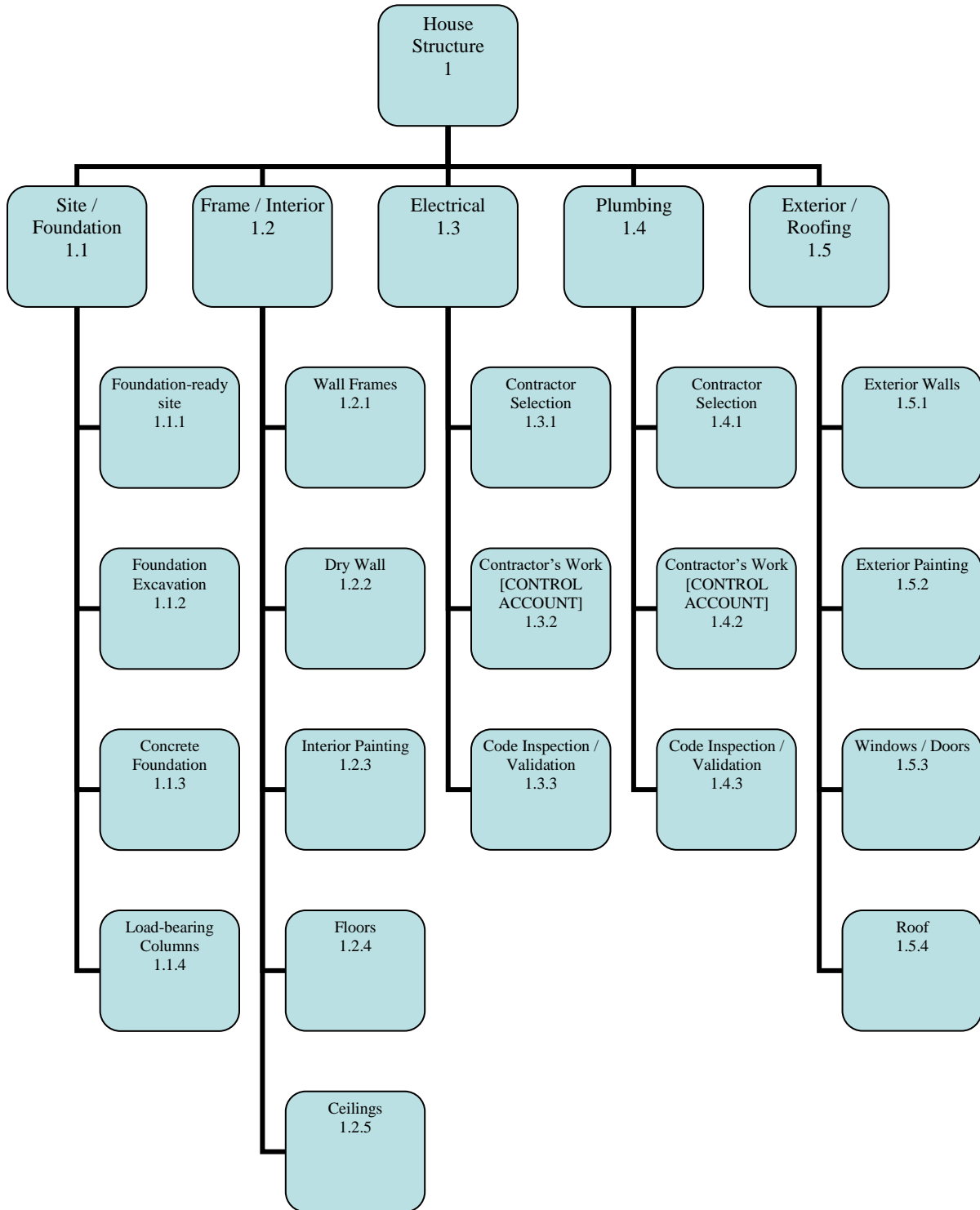
Several constraints have been identified for this Project. They are specifically described in the Scope, Schedule, Cost, and Quality Management Plans. It is imperative that considerations be made for these constraints throughout the project lifecycle. All members of the Core Team must remain mindful of these constraints, as they must be carefully planned for to prevent any adverse impacts to the project's schedule, cost, or scope.

## **ASSUMPTIONS**

Several assumptions have been identified for this Project. They are described in detail in the Assumptions Log. These assumptions should be communicated to key stakeholders, as they are closely related to the risks associated with the project. During project planning and execution, efforts will be made to identify and address the risks associated with the identified assumptions. Also, the Assumptions Log should be revised as new information impacts those assumptions already identified, and new assumptions are made.

**WORK BREAKDOWN STRUCTURE  
(WBS)  
HOUSE CONSTRUCTION PROJECT**

## WORK BREAKDOWN STRUCTURE (WBS) [TREE STRUCTURE VIEW]



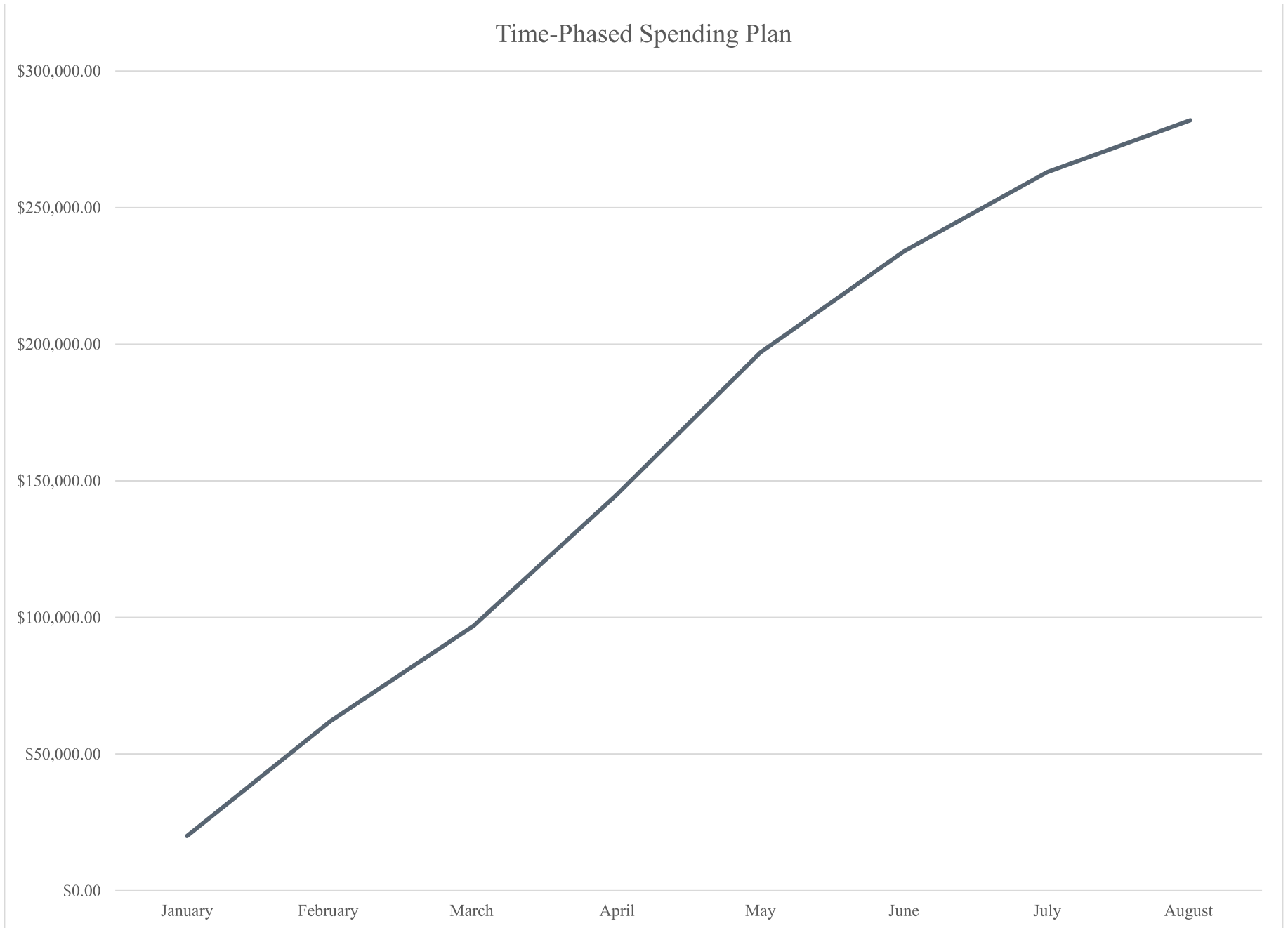
## WBS DICTIONARY

Level	WBS Code	Element Name	Details and Particulars
1	1	House Structure	
2	1.1	Site / Foundation	
3	1.1.1	Foundation-ready site	
3	1.1.2	Foundation Excavation	
3	1.1.3	<u>Concrete Foundation</u>	<del>Project Charter is delivered to the Project Sponsor.</del>
3	1.1.4	<del>Project Sponsor Reviews Project Charter</del> <u>Load-bearing Columns</u>	<del>Project sponsor reviews the Project Charter.</del>
2	1.2	Frame / Interior	
3	1.2.1	Wall Frames	
3	1.2.2	Dry Wall	
3	1.2.3	Interior Painting	
3	1.2.4	Floors	
3	1.2.5	Ceilings	
2	1.3	Electrical	
3	1.3.1	Contractor Selection	
3	1.3.2	Contractor's Work [CONTROL ACCOUNT]	
3	1.3.3	Code Inspection / Validation	
2	1.4	Plumbing	
3	1.4.1	Contractor Selection	
3	1.4.2	Contractor's Work [CONTROL ACCOUNT]	
3	1.4.3	Code Inspection / Validation	
2	1.5	Exterior / Roofing	
3	1.5.1	Exterior Walls	
3	1.5.2	Exterior Painting	
3	1.5.3	Windows / Doors	
3	1.5.4	Roof	



# Cost Baseline HOUSE CONSTRUCTION PROJECT

## Time-Phased Spending Plan



# COST BASELINE

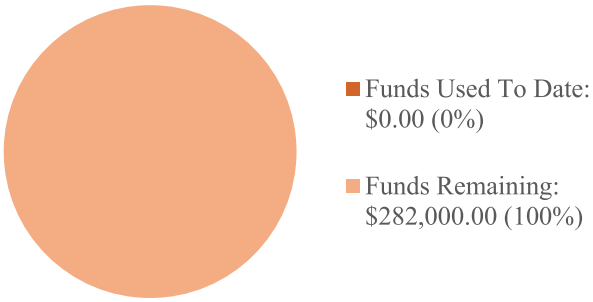
## House Construction Project [BASIS FOR BUDGET AT COMPLETION / BAC]

### PROJECT INFORMATION

Project Name	HOUSE CONSTRUCTION PROJECT
Project Description	See Project Scope Statement
Contractors	Electrical: TBD Plumbing: TBD
Source	WBS [included in Scope Baseline]
Primary Contact	Project Manager
Sponsor	William Warbucks
Phone	603-555-0198
Address	789 Smith Street, Bozeman, MT 06030

### FINANCIAL STATUS

Budget At Completion [BAC]	\$282,000
Financed Over-runs [from Mgt. Rsrvs.]	\$0
Total Allotted Funds	\$282,000
Funds Used To Date	\$0
Funds Remaining	\$282,000



# COST

# ESTIMATES

**PROJECT FUNDS ALLOTTED**

\$282,000.00

**FUNDS USED TO DATE**

\$0.00

**FUNDS REMAINING**

\$282,000.00

<b>Amount</b>		<b>Month</b>	<b>Cumulative Cost Est.</b>
	\$20,000.00	January	\$20,000.00
	\$42,000.00	February	\$62,000.00
	\$35,000.00	March	\$97,000.00
	\$48,000.00	April	\$145,000.00
	\$52,000.00	May	\$197,000.00
	\$37,000.00	June	\$234,000.00
	\$29,000.00	July	\$263,000.00
	\$19,000.00	August	\$282,000.00
<b>Total</b>			



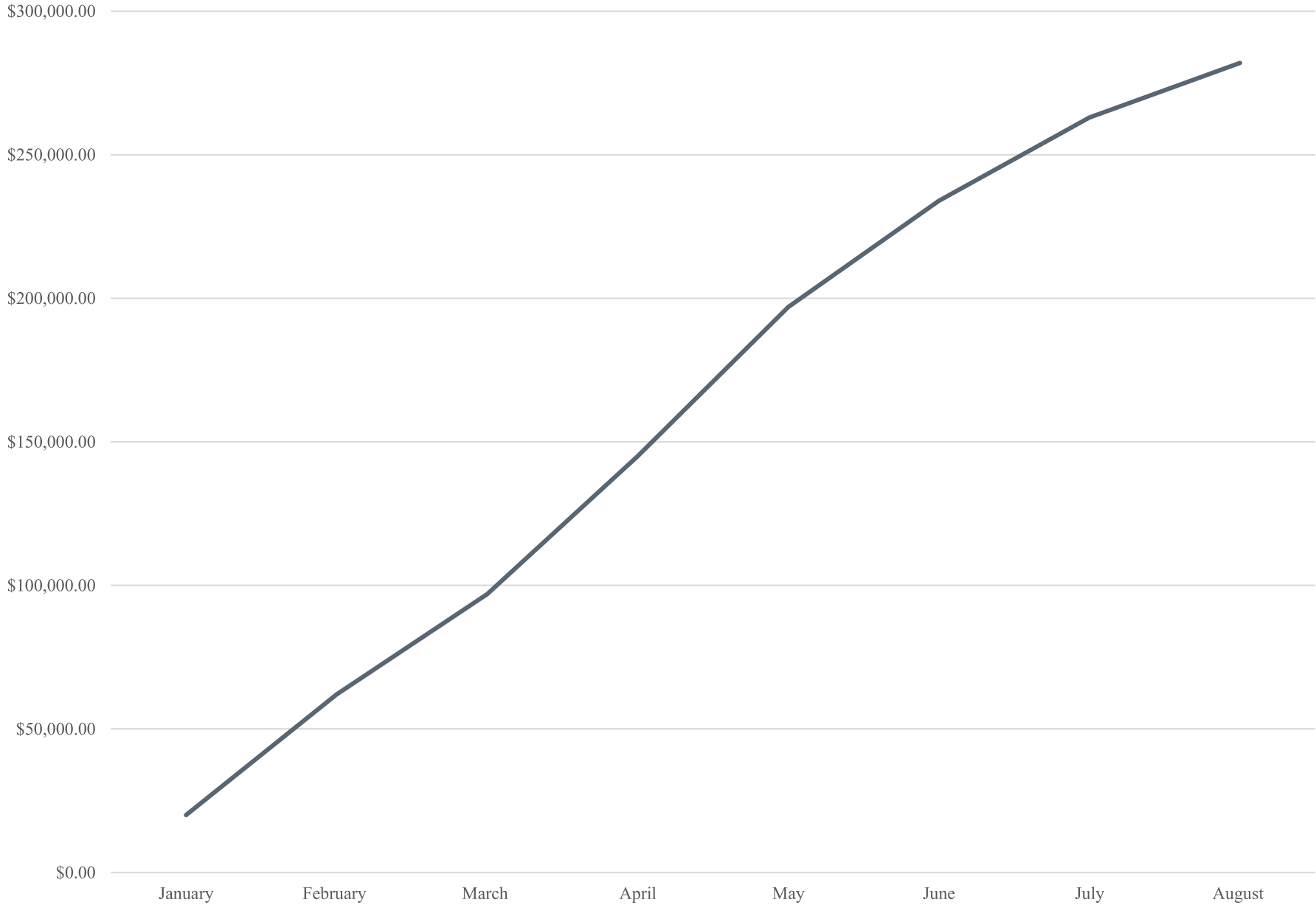
**Performance Measurement Baseline**  
**HOUSE CONSTRUCTION PROJECT**

# Scope Baseline - House Construction Project

Level	WBS Code	Element Name	Details and Particulars
1	1	House Structure	
2	1.1	Site / Foundation	
3	1.1.1	Foundation-ready site	
3	1.1.2	Foundation Excavation	
3	1.1.3	Concrete Foundation	
3	1.1.4	Load-bearing Columns	
2	1.2	Frame / Interior	
3	1.2.1	Wall Frames	
3	1.2.2	Dry Wall	
3	1.2.3	Interior Painting	
3	1.2.4	Floors	
3	1.2.5	Ceilings	
2	1.3	Electrical	
3	1.3.1	Contractor Selection	
3	1.3.2	Contractor's Work [CONTROL ACCOUNT]	
3	1.3.3	Code Inspection / Validation	
2	1.4	Plumbing	
3	1.4.1	Contractor Selection	
3	1.4.2	Contractor's Work [CONTROL ACCOUNT]	
3	1.4.3	Code Inspection / Validation	
2	1.5	Exterior / Roofing	
3	1.5.1	Exterior Walls	
3	1.5.2	Exterior Painting	
3	1.5.3	Windows / Doors	
3	1.5.4	Roof	



# Time-Phased Spending Plan



# COST BASELINE

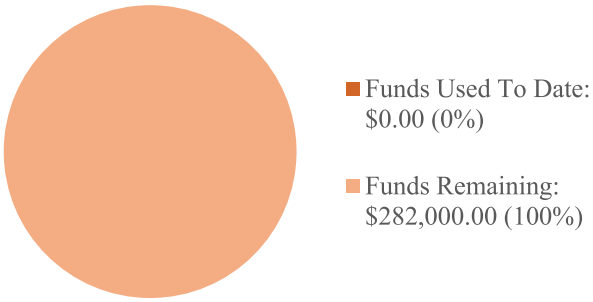
## House Construction Project [BASIS FOR BUDGET AT COMPLETION / BAC]

### PROJECT INFORMATION

Project Name	HOUSE CONSTRUCTION PROJECT
Project Description	See Project Scope Statement
Contractors	Electrical: TBD Plumbing: TBD
Source	WBS [included in Scope Baseline]
Primary Contact	Project Manager
Sponsor	William Warbucks
Phone	603-555-0198
Address	789 Smith Street, Bozeman, MT 06030

### FINANCIAL STATUS

Budget At Completion [BAC]	\$282,000
Financed Over-runs [from Mgt. Rsrvs.]	\$0
Total Allotted Funds	\$282,000
Funds Used To Date	\$0
Funds Remaining	\$282,000



# COST

# ESTIMATES

**PROJECT FUNDS ALLOTTED**

\$282,000.00

**FUNDS USED TO DATE**

\$0.00

**FUNDS REMAINING**

\$282,000.00

<b>Amount</b>		<b>Month</b>	<b>Cumulative Cost Est.</b>
	\$20,000.00	January	\$20,000.00
	\$42,000.00	February	\$62,000.00
	\$35,000.00	March	\$97,000.00
	\$48,000.00	April	\$145,000.00
	\$52,000.00	May	\$197,000.00
	\$37,000.00	June	\$234,000.00
	\$29,000.00	July	\$263,000.00
	\$19,000.00	August	\$282,000.00
<b>Total</b>			

## PROJECT LIFE CYCLE DESCRIPTION

### HOUSE CONSTRUCTION PROJECT

Project Phase	Comments
Planning	Includes all work and efforts related to developing the overall plans for the house. This planning work is done by members of the Project Management Team [Core Team]. It involves gathering general, functional requirements from representatives of the actual end-users. The key deliverables are components of the general [high-level] project planning documents.
Design	Includes all work and efforts related to developing the conceptual design and blueprints for the house. This design work is done by members of the Project Management Team [Core Team], primarily architects and engineers. It involves gathering structural and layout requirements from these design specialists. The key deliverables are the actual conceptual design and blueprints.
Building	Includes all work and efforts related to creating the physical structure of the house as described in the design and blueprints. This building work is done by members of the Project Team [Primary Tradesmen], primarily carpenters and roofers. It involves implementing the structural design created by the architects and engineers. The key deliverables are the foundation, frame, exterior, and roof.
Finishing	Includes all work and efforts related to creating the internally visible components of the house, as well as the functional equipment of the plumbing and electrical wiring. This finishing work is done by members of the Project Team [Primary Tradesmen], primarily plumbers, electricians, dry-wallers, painters, and flooring specialists. It involves implementing the interior design created by such designers. The key deliverables are the internal walls, floors, ceilings, and everything within the walls.

## **PROJECT DEVELOPMENT APPROACH**

### **HOUSE CONSTRUCTION PROJECT**

The development approach to be used on this project is the Predictive [Traditional] Approach.

As the final product, service, or result to be produced and delivered on this project is a single-family dwelling, the steps needed to successfully complete the project are well understood.

The project scope, schedule, and cost can and will be determined early in the planning for the project.

Any changes to the project scope will be carefully managed, and generally discouraged, unless they result from actual oversights on the part of the planning group [Core Project Team].

The phases to be completed for the project are clearly understood and logically connected. They are documented in the Project Life Cycle Description, and will not need to be altered or re-arranged.

Although specific project risks will be identified and analyzed, there will be little uncertainty regarding the major deliverables and tasks needed to bring the project to a successful completion.