**Charter, WBS, Communications Management Plan, Risk Management Plan, Schedule Management Plan, & Project Status Report**

**Phase Purple**

**Phase Racing**

**Date**

**July 14, 2021**

**Contents**

[Project Charter 1](#_Toc77408082)

[Executive Summary 1](#_Toc77408083)

[Project Purpose/Justification 1](#_Toc77408084)

[Business Need/Case 1](#_Toc77408085)

[Business Objectives 1](#_Toc77408086)

[Project Description 2](#_Toc77408087)

[Project Objectives 2](#_Toc77408088)

[Success Criteria 2](#_Toc77408089)

[Requirements 2](#_Toc77408090)

[Constraints 3](#_Toc77408091)

[Assumptions 3](#_Toc77408092)

[Preliminary Scope Statement 3](#_Toc77408093)

[Risks 3](#_Toc77408094)

[Project Approval Requirements 4](#_Toc77408095)

[Project Deliverables 4](#_Toc77408096)

[Summary Milestone Schedule 5](#_Toc77408097)

[Summary Budget 5](#_Toc77408098)

[Project Approval Requirements 6](#_Toc77408099)

[Project Manager 6](#_Toc77408100)

[Authorization 6](#_Toc77408101)

[Work Breakdown Structure (WBS) 7](#_Toc77408102)

[Introduction 7](#_Toc77408103)

[Tabular View 7](#_Toc77408104)

[Tree Structure View 8](#_Toc77408105)

[WBS Dictionary 9](#_Toc77408106)

[Project Organizational Charts 10](#_Toc77408107)

[Glossary of Terms 11](#_Toc77408108)

[Communications Management Plan 12](#_Toc77408109)

[Introduction 12](#_Toc77408110)

[Communication Management Approach 12](#_Toc77408111)

[Stakeholder Communication Requirements 12](#_Toc77408112)

[Communication Methods and Technologies 13](#_Toc77408113)

[Communications Matrix 14](#_Toc77408114)

[Guidelines for Meetings 15](#_Toc77408115)

[Communication Standards 15](#_Toc77408116)

[Communication Escalation Process 16](#_Toc77408117)

[Risk Management Plan 18](#_Toc77408118)

[Introduction 18](#_Toc77408119)

[Top Three Risks 18](#_Toc77408120)

[Risk Management Approach 19](#_Toc77408121)

[Risk Identification 19](#_Toc77408122)

[Risk Qualification and Prioritization 20](#_Toc77408123)

[Risk Monitoring 22](#_Toc77408124)

[Risk Mitigation and Avoidance 22](#_Toc77408125)

[Risk Register 23](#_Toc77408126)

[Sponsor Acceptance 23](#_Toc77408127)

[Appendix A: Project Risk Register (Phase Purple) 24](#_Toc77408128)

[Schedule Management Plan 27](#_Toc77408129)

[Introduction 27](#_Toc77408130)

[Schedule Management Approach 27](#_Toc77408131)

[Schedule Control 28](#_Toc77408132)

[Schedule Changes and Thresholds 28](#_Toc77408133)

[Scope Change 29](#_Toc77408134)

[Sponsor Acceptance 29](#_Toc77408135)

[Project Status Report 30](#_Toc77408136)

[Project Status Summary Percent Complete: 50% 30](#_Toc77408137)

[Work Planned for Last Month: 30](#_Toc77408138)

[Work Completed Last Week: 30](#_Toc77408139)

[After our third meeting, Phase Purple continued working on constructing the administrative area as per the project schedule. The construction work involved a day trip to certain local stores where organizing containers, office material, and electronics were purchased to furnish the administrative area. The project team also bought the new equipment and furniture to be installed which will be delivered in the coming weeks. 30](#_Toc77408140)

[Work Completed Next Week: 31](#_Toc77408141)

[Open Issues: 31](#_Toc77408142)

[Open Risks 31](#_Toc77408143)

[Deliverables and Milestones 31](#_Toc77408144)

[Open Change Requests 32](#_Toc77408145)

[Key Performance Indicators (KPI's) 33](#_Toc77408146)

# Project Charter

## Executive Summary

Phase Racing is a small business that specializes in manufacturing customized car accessories such as custom front splitters and rear diffusers for all car models to enhance the appearance of vehicles. Phase Racing started as a small company with two employees working out of their garage.

Company growth led to an increase in product demand, which resulted in an unacceptable accumulation of backorders. Therefore, the company needs to shift from small-scale tools such as cutters and saws to more extensive mass production machinery to keep up with customer demands. With a budget of $500,000, we plan to re-equip our 5000 square feet workshop with all machinery and tools needed to increase production. The budget also includes a contingency of about $110,714 reserved to cover unforeseen expenses. The tools required are handheld jigsaws, bench and angle grinders, electric spray guns for painting, and other heavy-duty machines such as CNC cutters and car lifts. The workshop will also have a new office section for administrative, and customer service staff and a storage shed for handheld tools and safety equipment.

The Phase Purple Project aims to redevelop the workshop into a new manufacturing line to produce standardized and custom products. The project involves remodeling the workshop and shed with the tools and machines needed to meet customer demand and account for continued company growth. Currently, the product's manufacturing cost is $40, with a selling price of about $130. Phase Racing would like to cut the manufacturing cost to about $30 and increase the selling price to $145 to meet the estimated 20% increase in sales plan by the end of next year.

## Project Purpose/Justification

Over the last two years, customer demand has increased for car front splitters and rear diffusers. Phase Racing needs more manufacturing tools and an updated/modified workshop to create our products to publish on Amazon. With updated machinery, we will be able to increase production and gain new customers. In addition, it will help us declutter the warehouse and save our employee’s time.

### Business Need/Case

The Phase Purple project has been created by a team of firmware engineers and facility and safety specialists. The project is to refurbish the workshop to encompass new heavy-duty machinery, packaging stations for online orders, and an office for administrative staff. The costs of the project will cover the new tools, machines, and additional organizers that are needed to make this project successful. It will also cover the training of employees and machine operators.

### Business Objectives

* Categorize all tools into an assembly line.
* Create a better waste disposal section for an eco-friendly way to dispose of scraps, oils, and other hazardous waste.
* New shelves in the storeroom to hold all cleaners, paints, and oils.
* Purchase of new racks for car parts.
* Build an office section to handle all administrative paperwork.
* New machinery: Laser cutter, bench grinder, bench saw, industrial jigsaw, car lifts, and spray booth.

## Project Description

The purpose of the Phase Purple project is to revamp the Phase Racing company’s workshop to increase productivity, decrease manufacturing time, decrease part variability, and reduce waste. The objectives of this project will be fulfilled through a workshop and workflow reorganization and the purchase and installation of large-scale production tools (i.e., computer-aided cutting machines/vehicle lifts/grinders). Employees will also be trained to work the machines and ensue safety procedures during operation.

## Project Objectives

1. Create a work area map within 10 days of project approval.
2. Create a list of worktables and essential tools for each work area that falls within budget within 15 days of project approval.
3. Set up work areas within 30 days of objective 2.
4. Create a list of large-scale production tools that fall within budget within 30 days of project approval.
5. Install large-scale production tools within 60 days of objective 4.
6. Receive training on large-scale production tools within 30 days of objective 5.

## Success Criteria

The project shall be considered successful if:

* All objectives are completed on time.
* Production time sees a 50% decrease within 1 month.
* Sales see a 200% increase within 6 months.
* Waste is reduced by 20%.

## Requirements

The project shall meet the following list of requirements:

1. All large-scale production tools are professionally installed.
2. Employees are trained on the use of large-scale production tools.
3. Work areas are organized by chronological workflow (i.e., station one work should precede station two work; station one should be adjacent to station two.)

## Constraints

1. All tools and work area hardware must be purchased within budget.
2. Equipment delivery time will be considered during equipment selection to ensure ample time for installation and training.
3. All purchased equipment must be compatible with the power outlets in their respective areas (i.e., 120VAC vs. 240VAC).
4. Two engineers will be allotted for the selection of tools and setup, 4 laborers will be assigned to assist with work area setup.

## Assumptions

1. The Engineering Manager will provide the necessary support.
2. All stakeholders support the project.
3. Employees will be informed of the required training and will complete it before using the equipment.

## Preliminary Scope Statement

The Phase Purple project will create an environment more conducive to the work required in making custom automotive front splitters and rear diffusers. The project aims to increase productivity and workflow, reduce variation in the product, and decrease waste. Daily work will cease during the installation phases of the project but shall continue uninterrupted during the research phases. The project manager will oversee the personnel and hardware required for the completion of the project. Any additional funding will require the approval of the project sponsors. The project will conclude when all work areas and tools are installed and functioning, and employees are trained on their usage. A final report will be submitted within 30 days of employee training. All machine documentation will be kept on file.

## Risks

The following are the identified risks for the Phase Purple project. The project manager and their team will continuously review project metrics and hold risk meetings with all stakeholders. The project manager will institute all necessary risk mitigation strategies as required to minimize disruptions or delays to Phase Purple.

* Scope Creep – Project stakeholders may lose track of the pre-determined project and add unrelated items/tasks to the agenda.
* Illness – Project stakeholders may experience illness throughout the project's life, potentially causing significant disruptions if multiple team members are exposed.
* External Societal Factors – Social unrest may cause disruptions to the flow of products or workers’ ability to access the project/material.
* Product Delays – Global shipping may continue to be disrupted/delayed due to the lingering effects of COVID-19 and the Suez Canal’s blockage.
* Funding – Project sponsors may not approve funding requests. Material prices fluctuate, which may affect the project's budget.
* Qualified Applicants – Part of the project's requirement is to hire additional employees. Finding, interviewing, and hiring qualified applicants may take longer than allowed in the schedule.
* Unforeseen Safety Risks – Remodeling a facility and installing new machinery may expose workers to unexpected safety hazards.
* Hazardous Material Exposure – Dependent on the facility's age, remodeling may reveal previously unknown asbestos, lead, polychlorinated biphenyls, or mercury which would require a work stoppage and mitigation.

## Project Approval Requirements

Success for the Phase Purple project will be declared when:

* The product is available for purchase via an online store.
* Production has been standardized.
* CNC tools installed and trained operators hired to ensure Phase Racing’s products meet advertised specifications.
* All permits obtained.
* As-built drawings on file.
* Technical specifications and manuals on file for new machinery.

## Project Deliverables

The following are deliverables that are part of the Phase Purple project. The project sponsor must approve any changes throughout the project.

* Proposal
* Design Drawings
* Permits
* Up to code for building workshop
* Administrative office construction
* New equipment and tools
* Improved organization system
* Quality check reports (risk management approval)
* Progress reports
* Eco-friendly waste improvement
* Final closeout of the project

## Summary Milestone Schedule

The project Summary Milestone Schedule is presented below and assumes project approval for the date of 5/31/2021.

|  |  |
| --- | --- |
| **Summary Milestone Schedule – List key project milestones relative to project start.** | |
| **Project Milestone** | **Target Date (mm/dd/yyyy)** |
| Project Start | 06/01/2021 |
| Work Area Map | 07/12/2021 |
| Work Area Installation | 07/16/2021 |
| Large Tool List | 07/31/2021 |
| Large Tool Installation | 08/15/2021 |
| Large Tool Training | 08/23/2021 |
| Fire Marshal Approval | 08/26/2021 |
| Project Closeout | 09/11/2021 |

## Summary Budget

|  |  |
| --- | --- |
| **Summary Budget – List component project costs** | |
| **Project Component/section** | **Cost** |
| Workshop construction cost (5000sq feet including labor) | $105,000 |
| Industrial machines (including transport and installation) | $83,936 |
| Tools (handheld and bench tools), including storage | $24,850 |
| Concrete flooring & HVAC, (including labor) | $65,000 |
| Mfg. line and office partitioning & setup | $26,500 |
| Hiring cost and licensing costs | $84,000 |
| Amount saved for appraisal cost/emergency during setup. | $110,714 |
| **Total** | **$500,000** |

The total cost to setup the factory is $389,286 with $110,714 saved for any unforeseen expenses other than the other costs that have already been considered. Further information and detailed cost break down is provided in the Phase Racing cost break down excel file.

## Project Approval Requirements

Success for the Phase Purple project will be achieved when the workshop is fully equipped with all tools and machines necessary to start production within the time and cost constraints indicated in this charter and when an online store is opened through Amazon. Training of staff is also needed to meet the criterion of the project. Additionally, measure of success must include safety instructions and first-aid training before the operation of the heavy machinery. Success will be determined by the Project Sponsors, Dr. Rogers, and Dr. K, who will also authorize the completion of the project.

## Project Manager

Slade Gomes is named Project Manager for the first week of the Phase Purple project. Each week a new project manager will take charge of delegating responsibilities and tasks to the group members. The subsequent Project Managers are Roxana Vaughan, Kayla Mook, Sarah Alhussain, and Michael Gibson.

Each project manager will take responsibility for managing all project tasks during their week in leadership. The team consists of a firmware engineer, two facility and safety specialists, and a technical communicator. The project manager is authorized to approve all budget expenditures up to allocated budget amounts. Any additional funding must be requested through the Project Sponsors, Dr. Rogers and Dr. K. Installation of the equipment will be done under the supervision of the firmware engineer, and safety specialist. Each project manager will provide weekly updates to the Project Sponsors through a written report and video upload.

## Authorization

Approved by the Project Sponsor:

Date:

Dr. Rogers & Dr. K.

Sponsors

# Work Breakdown Structure (WBS)

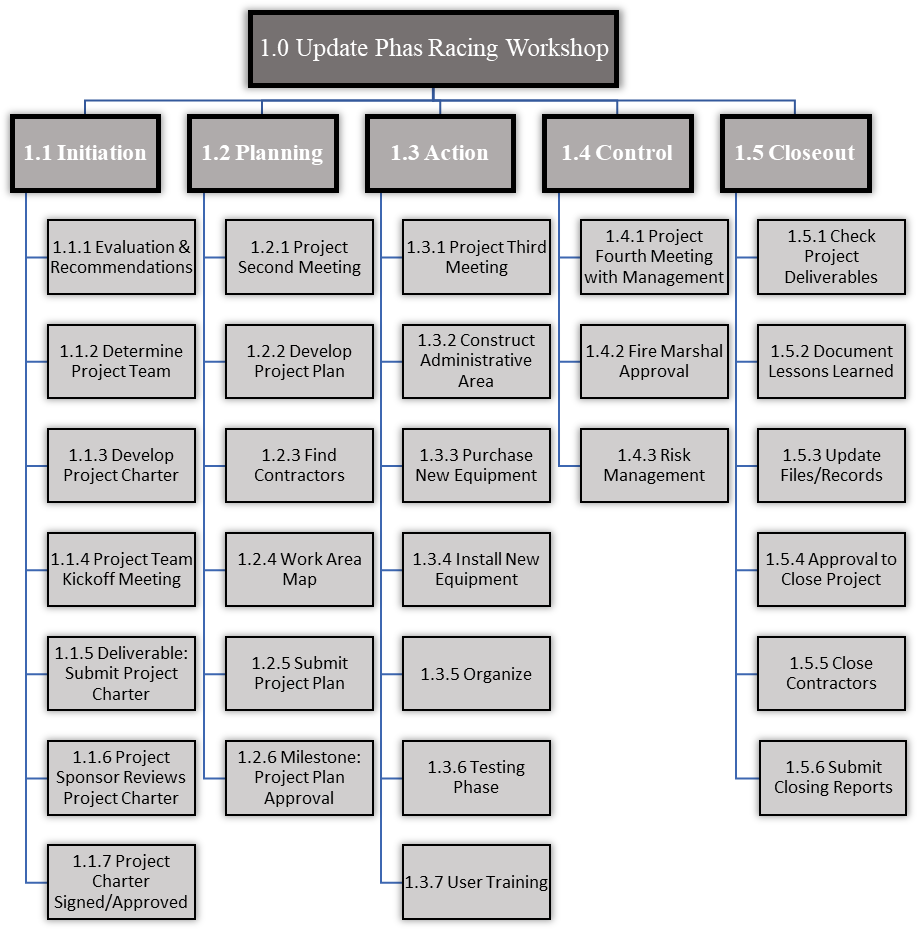
## Introduction

The Work Breakdown Structure presented here represents all the work required to complete this project. It includes a tabular and tree structure view that provides a visual representation of each high level (Level 1) task broken into its ancillary parts (Levels 2 and 3). It also includes a dictionary that describes each level's task, an organizational project chart that details each group member's responsibilities, and a glossary of terms.

## Tabular View

|  |  |  |
| --- | --- | --- |
| **Level 1** | **Level 2** | **Level 3** |
| 1 **Update Phase Racing Workshop** | 1.1 Initiation | 1.1.1 Evaluation & Recommendations  1.1.2 Determine Project Team  1.1.3 Develop Project Charter  1.1.4 Project Team Kickoff Meeting  1.1.5 Deliverable: Submit Project Charter  1.1.6 Project Sponsor Reviews Project Charter  1.1.7 Project Charter Signed/Approved |
| 1.2 Planning | 1.2.1 Project Second Meeting  1.2.2 Develop Project Plan  1.2.3 Find Contractors  1.2.4 Work Area Map  1.2.5 Submit Project Plan  1.2.6 Milestone: Project Plan Approval |
| 1.3 Action | 1.3.1 Project Third Meeting  1.3.2 Construct Administrative Area  1.3.3 Purchase New Equipment  1.3.4 Install New Equipment  1.3.5 Organize  1.3.6 Testing Phase  1.3.7 User Training |
| 1.4 Control | 1.4.1 Project Fourth Meeting with Management  1.4.2 Fire Marshal Approval  1.4.3 Risk Management |
| 1.5 Closeout | 1.5.1 Check Project Deliverables  1.5.2 Document Lessons Learned  1.5.3 Update Files/Records  1.5.4 Approval to Close Project  1.5.5 Close Contractors  1.5.6 Submit Closing Reports |

## Tree Structure View



## WBS Dictionary

|  |  |  |  |
| --- | --- | --- | --- |
| **Level** | **WBS Code** | **Element Name** | **Description** |
| **1** | 1 | Phase Racing Workshop Upgrade | All work required to create work areas, purchase, and install tools, and train employees |
| **2** | 1.1 | Project Initiation | Define scope of project and receive approval |
| **3** | 1.1.1 | Develop Project Charter | Approximate schedule and costs |
| **3** | 1.1.2 | Deliverable: Submit Project Charter | Project Sponsor receives Project Charter |
| **3** | 1.1.3 | Charter Approval | Project Sponsor signs Project Charter |
| **2** | 1.2 | Design | Create workshop work area map, and provide tool lists |
| **3** | 1.2.1 | Workshop Blueprint | Detailed blueprint of the workshop is created including power outlets and floor dimensions |
| **3** | 1.2.2 | Work Area Floorplan | Floorplan design options are created |
| **3** | 1.2.3 | Deliverable: Floorplan Submitted | Project Manager submits floorplan design that best matches needs, workflow, and power availability |
| **3** | 1.2.4 | Milestone: Floorplan Approved | The floorplan is approved. The team has permission to create work areas. |
| **3** | 1.2.5 | Work Area Benches | Work benches options are researched |
| **3** | 1.2.6 | Deliverable: Work Bench Order | Project Manager submits work bench order for approval |
| **3** | 1.2.7 | Milestone: Work Bench Order Approved | The work bench order is approved, and procurement of work benches can begin |
| **3** | 1.2.8 | Work Bench Procurement | Work benches are ordered |
| **3** | 1.2.9 | Small Tools | Small hand tool sets for each work area are researched |
| **3** | 1.2.10 | Deliverable: Small Tool Order | Project Manager submits small tool order for approval |
| **3** | 1.2.11 | Milestone: Small Tool Order Approved | The small tool order is approved, and procurement of the small tools can begin |
| **3** | 1.2.12 | Small Tools Procurement | Small tools are ordered |
| **3** | 1.2.13 | Large/Industrial Tools | Large tools (i.e., CNC cutters) are researched |
| **3** | 1.2.14 | Deliverable: Large Tool Order | Project Manager submits large tool order for approval |
| **3** | 1.2.15 | Milestone: Large Tool Order Approved | The large tool order is approved, and procurement of the large tools can begin |
| **3** | 1.2.16 | Large Tool Procurement | Large tools are ordered |
| **2** | 1.3 | Installation | Work areas and tools are installed |
| **3** | 1.3.1 | Floor Clearing | The workshop is cleared of current equipment |
| **3** | 1.3.2 | Load In | New equipment is loaded in and unpacked |
| **3** | 1.3.3 | Bench Installation | Work benches are installed in each work area |
| **3** | 1.3.4 | Small Tool Installation | Small tools are divided and delivered to each work area, and organized |
| **3** | 1.3.5 | Large Tool Installation | Large tools are installed at their appropriate work area |
| **3** | 1.3.6 | Large Tool Testing | Large tools are sanity-checked for basic functionality |
| **2** | 1.4 | Large Tool Operation | Large tools and operational tests are performed |
| **3** | 1.4.1 | Training | Employees are trained on the appropriate operation of the large tools |
| **3** | 1.4.2 | Large Tool Operational Testing | Operational tests are performed on large tools |
| **3** | 1.4.3 | Deliverable: Large Tool Operational Report | Project Manager delivers report on large tool operational status |
| **3** | 1.4.4 | Milestone: Large Tool Operational Approval | The large tool operational report is approved. No returns/re-orders required |
| **2** | 1.5 | Control | Monitors project status and mitigates risks |
| **3** | 1.5.1 | Status Update Meetings | Weekly project status update meetings are performed to ensure progress meets or exceeds schedule and budget |
| **3** | 1.5.2 | Risk Management | Risk mitigation as defined in the Project Charter and Risk Management Plan |
| **2** | 1.6 | Post Project | Project wrap-up operations |
| **3** | 1.6.1 | Deliverables | Ensure all deliverables are met |
| **3** | 1.6.2 | Deliverable: Final Project Approval | Project Manager submits request for approval to end project |
| **3** | 1.6.3 | Milestone: Final Project Approval Acceptance | Final Project Approval is accepted. The Project Team is disbanded |

## Project Organizational Charts

The following Responsible, Accountable, Consult, Inform (RACI) chart details each team member’s responsibilities as they relate to pertinent project tasks. The project manager is ultimately responsible for ensuring all tasks are completed and signed off on. Any changes must be submitted to the project manager for approval and the Technical Communicator will file and distribute the revised version to the project team.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Project Manager** | **Firmware Engineer** | **Facility Specialist** | **Safety Specialist** | **Technical Communicator** | **Functional Managers** | **Contractors** |
| **Requirements Gathering** | A | R | R | C | I | C | I |
| **Facility Layout** | A | R | R | C | I | R | I |
| **Workflow Design** | A | R | C | C | I | R | I |
| **Equipment Procurement** | A | C | C | C | I | C | R |
| **Tool Installation** | A | C | C | C | I | C | R |
| **As-Built Documentation** | A | I | I | I | I | I | R |
| **Permit Acquisition** | A | C | C | C | I | C | R |
| **Testing Equipment** | A | R | C | C | I | C | R |
| **Training Operators** | A | C | C | C | I | C | R |

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.

## Glossary of Terms

|  |  |
| --- | --- |
| **Communications** | “Communications is the giving, receiving, processing, and interpretation of information. Information can be conveyed verbally, non-verbally, actively, passively, formally, informally, consciously or unconsciously” (PM4Dev, 2015, p. 5). |
| **Conflict Management** | “Conflict management is the process of identifying and addressing differences. Effective conflict management prevents differences from becoming destructive elements in a project” (PM4Dev, 2015, p. 6). |
| **Deliverable** | “Any measurable, tangible or intangible, verifiable item that must be produced to complete a process, phase, or project” (PM4Dev, 2015, p. 6). |
| **Dependency** | “A relationship between two or more tasks. A dependency may be logical … or resource-based” (PM4Dev, 2015, p. 6). |
| **Milestone** | “A point in time when a deliverable or set of deliverables is available. Generally used to denote a significant event such as completing a phase of the project or a set of critical activities. A milestone is an event; it has no duration or effort. It must be preceded by one or more tasks (even the beginning of a project is preceded by a set of tasks, which may be implied)” (PM4Dev, 2015, p. 11). |

\*PM4Dev. (2015). *Project Management Glossary of Terms*. Author.

# Communications Management Plan

## Introduction

This Communications Management Plan will set the communications framework for the Phase Purple project. This plan will be used as a guide for communications throughout the life of the project. The guide will be updated as communication needs arise and change. This plan identifies and defines the roles of the team members who are involved in this project. It also includes a communications template that records the communication requirements of the project. This plan explains the communications rules to ensure that all parties involved in meetings are respected. This includes meetings with sponsors, contractors, and stakeholders. It also details how the meetings will be conducted to ensure that they are orderly and time-efficient. This plan also includes the methods for formal and informal communication between team members, stakeholders, contractors, and sponsors.

## Communication Management Approach

This project management team will be working with Phase Racing to refurbish their workshop to encompass new heavy-duty machinery, packaging stations for online orders, and an office for administrative staff. The project manager will have fluent communication with any updates and roles from start to finish. All updates will be posted in the communication matrix that is enclosed in this document.

The project manager communicates with a highly developed team that includes firmware engineers and facility and safety specialists. These individuals have the experience to help with the project in the following way:

1. Updating the facility

2. Purchasing the suitable materials

3. Contracting the right workers

4. Budgeting

5. Applying risk management safety procedures

The team will meet every Monday to communicate weekly updates that are essential for the Phase Purple Project. Any changes within the timeframe and project will be shared efficiently. The project manager will communicate with stakeholders every month to engage in all work done on the project.

## Stakeholder Communication Requirements

The project manager is responsible for all stakeholder communication. Only three formal communication processes are approved throughout the life of the Phase Purple Project: formal meetings (virtual or in-person), Canvas collaboration, and email. All communication outside of a formal meeting or email is to be considered informal and therefore non-binding. While kicking off the project, the project manager will collaborate with each stakeholder to determine their preferred method of communication and frequency. The project manager will negotiate all stakeholder preferences to ensure the project team's needs are being met and open communication is achieved. At a minimum, the project manager will host a monthly meeting with all stakeholders or their representatives in attendance.

If a dependency exists that requires collaboration between stakeholders, the project manager will negotiate the stakeholders' relationship and be included in all related communication.

There are no security concerns for this project. Each stakeholder's business email is acceptable for use unless any personal identifiable information (PII) is required to be transmitted, in which case a password-protected file will be sent via email. All meetings will have teleconferencing abilities via Zoom, and the project manager will ensure each stakeholder, or their representative, has access to the teleconference link.

Due to the simplicity of the project's communication process, a Stakeholder Register will not be utilized for the Phase Purple Project. The Technical Communicator retains documentation of all communication regarding the project; however, the project manager shall retain accountability for all documentation.

## Communication Methods and Technologies

The project team will use an array of communication technologies for the project duration.

* The team shall use IU's Canvas system for work submission and collation.
* The team shall use Canvas for comments, suggestions, and reviews of each team members' work submissions.
* The team shall use Signal for time-sensitive exchanges, simple collaboration, and as a notification system.
* The team shall use Zoom meetings weekly for project collaboration.
* The team shall use Zoom meetings to communicate project status with project stakeholders.
* The team shall use Zoom meetings to communicate milestones with project stakeholders.
* The team may use Canvas email to update project stakeholders on minor issues as they arise.

The project team will use a variety of technologies for the project duration.

* The team shall use a FreeCAD to design the work areas.
* The team shall use provided training technologies for extensive tool training.
* The team shall use general PC and internet technology to research tools and desks.

## Communications Matrix

The following table identifies the communications requirements for this project.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Communication** | **Goals** | **standard** | **Time** | **Attendees** | **Meeting in charge** | **Deliverables** | **Format** |
| **Project Initiation.** | Introduce and familiarize project members with the project goals and the deliverables. | In person meeting. | Intro meetings are held once for a maximum time limit of 2 hours. | 1: Project sponsor  2: Project stake holders  3: Project manager  4: team members. | 1: Project manager.  2: Project owner. | 1: Project agenda.  2: Scope of the project.  3: Business plan. | 1: Soft copy via power point presentations and reports and documents on the company website.  2: Hard copies of documents are filed. |
| **Team progress meetings.** | Project progress is discussed. | Meetings held via zoom. | Weekly meetings of 30 minutes with 7 minutes assigned to each member. | 1: Project manager.  2: Team members. | Project manager. | 1: Weekly agenda.  2: Weekly progress reports  3: Schedule for the upcoming week. | 1: video format via zoo. All meetings are recorded and saved.  2: Power point presentations may be saved. |
| **Team building meetings.** | Team strengths and strategies are discussed. | Meetings held via zoom | Meetings held on demand. 30 minutes time limit. | 1: Project manager  2: Team members. | Project Manger | 1: Team unity and strategy development  2: Project timeline | 1: video recordings of zoom meetings are saved for future reference. |
| **Technical meetings.** | Discuss the technical aspects of the project. | 1: in person meetings  2: Video conferencing | Meetings are held when needed. Up to 2 hours only. | 1: Chairperson  2: Project owner  3: Project manager  4: Team members  5: Engineers | 1: Project manager  2: Project owner | 1: Scientific solutions.  2: Technical difficulties. | 1: Soft copy as well as reports filed at the manager’s office.  2: Meetings are recorded and saved. |
| **Project status reports.** | Formal reporting on project progress, critical aspects, and cost. | Email | Once every month. | 1: Project sponsor.  2: Project manager.  3: Project owner.  4: Project members  5: Project stakeholders | Project manager | 1: Project status.  2: Project timeline | 1: Project reports are saved and filed by the project manager. |

## Guidelines for Meetings

**1: Meeting Agenda:** The agenda for each meeting will be provided 6 days before each meeting. Each project member will be provided with a weekly project deliverable. The meetings will be held by the project manager. Each member will begin with a review of the previous weeks' work and then present the weekly progress to the other group members within the next 5 minutes. After the work has been presented the project manager and other team members quickly raise questions and/or concerns about the next steps of the project.

**2: Time limits:** Meetings will be held every Monday. The project manager conducts the meeting. Each meeting will last for 30 minutes. Each member will have a total of 7 minutes to present and answer questions regarding the work being carried out. The meetings will begin with the project manager’s briefing of not more than 3 minutes.

**3: Deliverables:** This part will be discussed in the meeting agenda as well as the time limits. The project is broken down into smaller deliverables that are under the control of individual project members. Each member will receive information about the deliverables for the next week depending on the project progress. The project manager can alter the course of work in case any unforeseen problems arise during execution.

**4: Administrator:** Each project member takes turns to play the role of the administrator. The administrator makes sure that each member is present during the meeting and makes sure that basic etiquette and professionalism are maintained during each meeting. The administrator also makes sure that the meeting starts and ends while all members are present. The administrator will report to the project manager in case information needs to be reviewed at a later date.

**5: Data and recording:**All weekly meetings are held via Zoom. Each meeting is recorded, edited, and saved for future reference by the project manager and the stakeholders.

**6: Timekeeper:**For this project, the administrator also plays the role of the timekeeper. Each project member is allotted a total of 7 minutes. The timekeeper plays the role of keeping track of the time spent by each speaker and managing the meetings such that all discussions are held before the end of 30 minutes. Depending on the agenda to be discussed, the administrator has the power to allot more time for the meeting on certain occasions.

## Communication Standards

**Communication standards:** Every project group must establish a communication standard between its members, project manager, and stakeholders. For this reason, Phase Purple has opened 5 communication lines, (3 formal and 2 informal), to keep all parties connected.

**A: Formal**

**1: Email:** All important information and project reports must be sent via email to the project manager. All reports and communication between the project manager and the stakeholders must be done formally via emails only.

**2: In-person meetings with telecommunication capabilities:** The project team will meet in person only if a critical problem or setback to the project is observed. The meetings will be held at the administrator’s office where brainstorming sessions are carried out on a whiteboard. Due to the current pandemic situation, telecommunication will be done via Zoom only. In-person meetings will be conducted only when necessary.

**3: Canvas System:** All documentation and written tasks will be submitted by everyone on the project team in the allotted area on Canvas and the project manager will be notified of the submissions.

**B: Informal**

**4: Signal messaging app:** Signal is a messaging app easily accessed on any mobile phone device. Group members use the app to stay connected and notify each other daily of all progress made concerning the project. Communications on the app are carried out strictly on a group chat which the administrator monitors closely.

**5: Zoom:** Zoom meetings will be held every week on Monday to follow up on project progress. The project manager will oversee the meeting and the administrator will ensure that all team members are present. Zoom will be used to carry out all group discussions.

## Communication Escalation Process

Disagreements and complications are an inevitable part of project management. The project manager is responsible for completing and maintain this Conflict Escalation Matrix and any modifications must be approved by him/her. The Technical Communicator retains documentation of the Communication Escalation Matrix and any conflict presented to the project manager. However, the project manager shall maintain accountability for all documentation.

|  |  |  |  |
| --- | --- | --- | --- |
| **Priority** | **Definition** | **Decision Authority** | **Timeframe for Resolution** |
| **Priority 1** | Major impact to project or business operations. If not resolved quickly, there will be a significant adverse impact to revenue and/or schedule.  Ex., any item that will cause significant delays to the project such as a hazardous material that requires mitigation is identified. | Project Sponsor | Within 4 hours |
| **Priority 2** | Medium impact to project or business operations which may result in some adverse impact to revenue and/or schedule.  Ex., a key contractor has become ill and is unable to work. | Project manager | Within one business day |
| **Priority 3** | Slight impact which may cause some minor scheduling difficulties with the project but no impact to business operations or revenue.  Ex., scheduling applicant interviews is delayed by weather conditions. | Project manager | Within two business days |
| **Priority 4** | Insignificant impact to project but there may be a better solution.  Ex., contractor access to the building is interfering with one another causing < 1-hour delays. | Project manager | Work continues and any recommendations are submitted via the Project Change Control Process |

\*\* NOTE: Any communication including sensitive and/or personally identifiable information will require escalation to the Project Sponsor level or higher for approval prior to external distribution.

# Risk Management Plan

## Introduction

Risk is a probability in all activities and decisions made by every individual daily. Minimizing risk in the Phase Purple Project is vital to the Project Manager and the project team. The purpose of risk management is to foster a plan that ensures the project's success and ensures the safety of each person who is a part of the project, including sponsors, prospective new hires, contractors, and internal and external stakeholders.

The Phase Purple Project team has used a five-step process for managing the inherent risks of this project. These steps are:

1. Identifying the risks
2. Assessing the risks
3. Making risk decisions
4. Implementing controls
5. Supervising and watching for a change

Within this process, we hope to have each person empowered to speak out if they identify any potential risk factors so they can be addressed as soon as possible.

## Top Three Risks

Phase Purple Project's top three risks are:

1. **Safety**
2. **Electrocution:**If machinery is not installed in its proper sockets, electrocution can occur.
3. **Falls:** Spillage of liquid waste could cause slips and falls. Reconstruction of the administration section of the workshop could cause falls and injuries if something were to be dropped from a height.
4. **Toxic Inhalation:** There will be painting and spray booths, which, if not dealt with properly, could cause toxins to get into the lungs and respiratory system.
   * + **Injury Prevention:**Recognizing fall hazards, the possibility of spillage of oils, and the inhalation of toxic gasses is critical for determining the best methods and equipment for protecting workers' health and safety before production begins. First aid kits and CPR training for all staff and employees will be provided to reduce the risk of serious injury after closeout. Protective gear will be distributed to limit the cause of construction injury during the remodeling phase of the project.
5. **Procurement**
6. **Delays:** There may be a delay in orders and delivery times. The current COVID-19 outbreak and the blockage in the Suez Canal will be kept in mind when placing orders for machinery and tools. Selecting suppliers with more availability and delivery timelines to ensure delivery is made on schedule and not late will also be considered. Checking vendors and contractors closer to the workshop’s location will save time and ensure timely delivery. It will also reduce the cost of shipping.
7. **Talent Shortage:** The inability to find the necessary talent to operate the machines once installed and operation begin is a major concern for the project as ROI depends on staffing to be successful. It is crucial to undergo staff selection and training processes before closeout to ensure manufacturing starts after the project ends and Phase Racing can make a profit.
8. **Financial**
9. **Funding approval:** Project sponsors may not approve funding requests which could cause delays in deadlines. Seeking financial approval early is fundamental to the project’s success.
10. **Supply costs:** Material prices fluctuate, which may affect the project's budget. For this reason, it is important to check different vendors and suppliers to ensure the procurement of supplies with adequate pricing and good quality.

## Risk Management Approach

The risk management approach that Phase Purple has developed for this project includes a detailed process that all members of the project communicated during the first initial meeting. All potential risks are identified, scored, and ranked from highest to lowest. The facility specialists follow up with the project manager weekly for any concerns. They are the main point of contact for risk management. They will report all mitigation responses that happen promptly and followed by the project’s schedule.

Safety, procurement, and financial are the top three risks for the project. All team members will communicate in weekly meetings of any new information regarding these concerns when they come up. Phase Purple has a risk management plan in place if these events do occur. Specific finance planning involves ROI and alternative purchasing. For safety, the facility specialists are certified and will continue to follow OSHA regulations.

## Risk Identification

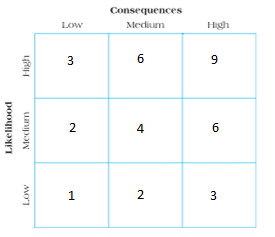
Phase Purple and the stakeholders have continually addressed any risks that may happen during the project. In the brainstorming meeting, the potential risks were discussed. The project team consulted with the vendors for an expert opinion to gather all information related to risk management to ensure safety for the business and employees. Using previous customer feedback was another essential point for our risk identification. The risks that were discussed are in the below table.

|  |  |  |
| --- | --- | --- |
| **Number** | **Risk Areas** | **Significant Risk** |
| **1** | Change Management | * Project stakeholders may lose track of the pre-determined project. * Add unrelated items/tasks to the agenda. * Extra work orders. |
| **2** | Personnel | * Illness within the timeline of the project that can a. lead to exposure, b. absenteeism, c. resignation, and d. inadequate training. * Hiring new employees on time. |
| **3** | Procurement | * Product delays. * Cost of supplies. * Inability to find suppliers. * Quality of supplies and equipment does not meet expectations. |
| **4** | Financial | * Delayed approval for funding. * Material prices fluctuate. |
| **5** | Safety | * Remodeling a facility and installing new machinery may expose workers to unexpected safety hazards. * Certification for forklift. * Fire safety and codes. |
| **6** | Environmental | * Facility age might bring unknown asbestos, lead, polychlorinated biphenyls, or mercury. * Hazardous material usage could result in spills or other exposure. * Weather delays. * Social unrest. |
| **7** | Contractual | * Missed project deadlines. * Miscommunication. * Delays. * Liquidated damages. |

## Risk Qualification and Prioritization

The matrix in this section was used to assess each risk using likelihood and strength of consequences to rank each risk for prioritization. Each variable (likelihood, consequence) is rated from 1 to 3, where a lower score is less severe, and a higher score is more severe. When the total score is higher, the risk to the project is greater, and when the total score is lower, the risk to the project is lower.

**Matrix:**



|  |  |  |  |
| --- | --- | --- | --- |
| **Risk** | **Likelihood** | **Consequence** | **Total** |
| **Change Management** | 1 | 2 | 2 |
| **Personnel** | 1 | 1 | 1 |
| **Economic** | 1 | 2 | 2 |
| **Financial** | 2 | 3 | 6 |
| **Safety** | 2 | 3 | 6 |
| **Environmental** | 1 | 3 | 3 |
| **Procurement** | 3 | 3 | 9 |
| **Contractual** | 1 | 3 | 3 |

Procurement impacts are the highest risk to the project, with a score of 9. Financial and Safety both received a score of 6, setting them as the second and third-highest risks to the project. Personnel received a score of 1 - the lowest risk to the project.

**Financial**

Financial received a score of 6. The likelihood that funding will be an issue is 2/3, but the consequences are 3/3. The project will go through many approvals to seek funding, but those funds are not guaranteed. Since the project seeks to purchase many items, have them installed, and provide training, many costs may be hard to estimate, and costs may also fluctuate unexpectedly. This also increases the likelihood that funding may be found to be insufficient. The impact of low funding is high. Without proper funding, the equipment cannot be purchased, and the whole project becomes at risk.

**Safety**

Safety also received a score of 6. The likelihood that Safety will be an issue is 2/3, but the consequences are 3/3. The project seeks to remodel a section of the warehouse where an administration office will be installed. It will need some construction work done to build the section. This could generate injuries if safety gear is not used during the renovation phase. The project also includes installing industrial/power/computer-controlled tools to improve output and decrease the variance of the product. These tools have learning curves, moving parts, and more power than standard hand tools. Employees in the manufacturing process may be unfamiliar with these tools. Thus, the likelihood of a safety incident is somewhat high. Safety incidences are costly, time-consuming, and directly affect humans' health and lives in the work environment. Lawsuits may come with safety incidences. Thus, the consequence of Safety is high.

**Procurement**

Procurement received a score of 9. The likelihood that a procurement incidence will be an issue is 3/3, and the consequences are 3/3. Many issues can affect the economic viability of the project. Product delivery, prices, delays, and more must work together for the project to be completed successfully and an ROI to be achieved. Because of the number of factors and their interdependence, procurement making an economic impact likelihood is high. The consequences of economic impact are also high. This project seeks to increase profitability and quickly attain an ROI. Issues that affect these goals affect the whole project and its success.

## Risk Monitoring

The greatest risk to the project is procurement, followed by safety and financial. Many project activities should be closely monitored to watch for risk in these categories.

* The project manager shall closely monitor the tool cost estimation, quoting, and procurement phase of the project to ensure that the procurement of tools stays under budget and that the tools elected for procurement can and will be delivered on time by the suppliers.
* The project manager shall monitor the shipping progress of tools to identify any delays to be reported to project stakeholders and then mitigated.
* The project manager shall monitor negotiations to install the tools procured to ensure that the tools are functioning properly.
* The project manager shall monitor negotiations for training on large tools to ensure that training is provided, timely, and cost-effective.
* The project manager shall monitor training effectiveness to ensure that employees learn from the training and safely use the tools.

## Risk Mitigation and Avoidance

Risk mitigation revolves around the concept of reducing or avoiding the possible occurrence of a risk. For risk mitigation in this project, the goal is to focus on the proper training and protocol to ensure a safe environment for everyone. Correct protocol and training play an essential role in mitigating all the risks related to the project. This includes safety, financial, environmental, procurement, and personal risks.

For safety risks, the safety specialists will ensure that all workstations are equipped with a first aid kit in case of minor accidents. All new hires will be required to take a CPR training course to prepare them for more serious injuries before project closeout.

This project will also have an inspection officer who will keep track of the material being utilized and the material stock in storage. This reduces the procurement risk and financial risk associated with the cost of material from the suppliers. Having a dedicated workspace and office for important members makes it easy to reach out to the right people at the right time if any risk arises. For this project, the project manager and the inspection officer will develop a mitigation plan, and it will be handed over to all team members. It will be finalized and posted in the administrator’s office on a public display board to be visible to all employees.

## Risk Register

The risk register (Appendix A) will be created and maintained by the safety specialist and project manager with input from the project team. It will be developed at an initial project risk assessment meeting which will be held monthly thereafter. Each month the project manager will hold a risk meeting with a representative from all stakeholders to review and update the risk register and mitigation techniques. The risk register will include comprehensive information about all risks identified at these meetings, risk categories, qualitative rating, mitigation plans, and each risk’s owner. The safety specialists will update the risk register after each monthly meeting, and the technical communicator will maintain a record for the project.

## Sponsor Acceptance

Approved by the Project Sponsor:

Date:

Dr. Rogers & Dr. K

Sponsors

## Appendix A: Project Risk Register (Phase Purple)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Risk Identification** | | **Qualitative Rating** | | | | **Risk Response** | | |
| Risk | Risk Category | Probability | Impact | Risk Score | Risk Ranking | Risk Response | Trigger | Risk Owner |
| * Product delays: Global shipping may continue to be disrupted/delayed due to the lingering effects of COVID-19 and the Suez Canal’s blockage. * Product errors. * Product quality. * Lost/damaged shipments. * Unavailable products. | Procurement | 2 | 3 | 6 | 1 | * Work with procurement specialists to stay aware of lead times and any anticipated delays. * Identify replacement products that may be used or modified for use. * Insure all shipments to transfer financial risk to insurer. * Procure all major components/tools as soon as possible to minimize risk of project delays. | * Global shipping delays occur. * Products do not ship or arrive as scheduled. * Products arrive but not within specification(s). * Required products are unavailable. | * Contractors * Functional Managers * Technical Communicator |
| Remodeling a facility and installing new machinery may expose workers to unexpected safety hazards such as:   * Falls * Cut * Electrical shock * Burns * Fires * Struck by/Crushed by hazards from vehicles or material | Safety | 2 | 3 | 6 | 2 | * Project safety specialist, facility managers, functional mangers, and contractors should complete daily inspections of work areas for hazard and ensure correction. * Ensure all persons on site have received appropriate personal protective equipment, including high-visibility clothing, and training to be in a factory and construction area. * Perform, at minimum, weekly fire safety walkthroughs. * Perform monthly checks of all portable fire extinguishers. * Station a fire watch in accordance with National Fire Protection Association guidelines. * Require all personnel operating heavy machinery to hold an operator’s permit and have received training. * Hold training sessions with all operators to ensure they understand how to use any new machinery and safety interlocks. | * Safety hazard or any near miss is observed/reported. * An unlicensed operator is operating equipment. * An authorized person enters factory or construction area without personal protective equipment. | * Safety Specialist * Facility Managers * Functional Mangers * Contractors |
| * Project sponsors may not approve funding requests. * Material prices fluctuate, which may affect the project's budget. | Financial | 2 | 3 | 6 | 3 | * Determine if fluctuations are outside of tolerance and confer with procurement for further options. * Compare fluctuations to verify that other materials did not go equally down in cost negating the change in prices. * Meet with stakeholders to discuss ways to keep project within budget without requiring additional funds from sponsors. | * Price increase outside of preapproved tolerance. * Procurement requests total higher than budgeted. | * Contractors * Technical Communicator |
| * Dependent on the facility's age, remodeling may reveal previously unknown asbestos, lead, polychlorinated biphenyls, or mercury which would require a work stoppage and mitigation. * Hazardous material usage could result in spills or other personnel or environmental exposure. * An act of God or nature could impact the project's timeline. * Social unrest may cause disruptions to the flow of products or workers’ ability to access the project/material. | Environmental | 1 | 3 | 3 | 4 | * Insert force majeure clause into all contracts with clients. * Clearly define force majeure in any subcontractor contracts to prevent disagreements over what events qualify. * Require subcontractors to monitor and prepare for any adverse weather. * Research age and prior use of facility to determine if any contaminants are likely. * Contract rigorous testing by a Certified Industrial Hygienist to verify if any contaminants are present prior to performing any demolition activities. * Require all workers to attend hazardous material training prior to working on this project. * Stage spill kits appropriate for hazardous materials in use at frequent intervals. * Accept that an act of God may occur and schedule contingency time and money into the project planning. * Maintain enough material on site to continue working with short delays. | * Unsecured material is observed or reported. * Adverse weather notification from weather monitoring services, such as the local news. * History of building indicated hazardous material may be present: old transformers, old machinery, coal or oil storage, painted prior to 1979, electrical insulation, or old insulation/flooring tiles. * Hazardous material observed in use without appropriate precautions (i.e., securing the lid when not in use). * Spill kits have tamper seals broken. * Adverse social conditions are reported, such as an impending protest or strike. | * Project Manager * Contractors * Safety Specialist * Facility Managers * Functional Mangers * Technical Communicator |
| * Project deadlines could be missed leading to liquidated damages incurred to client. * Specifications could be inadequate leading to miscommunications and delays | Contractual | 1 | 3 | 3 | 4 | * Monitor critical path work on a weekly basis. * Maintain open communication with contractors about project progress or delays. * Facility manager and firmware engineer to inspect project daily and complete progress reports. * Contractors must inform the Project Manager immediately when a specification question arises. | * Critical path work appears to be delayed. * Daily progress reports indicate progress that does not align with schedule. * Project team hears of specification questions from field workers or other personnel. | * Project Manager * Facility Manager * Firmware Engineer * Contractors |
| * Project stakeholders may lose track of the pre-determined project and add unrelated items/tasks to the agenda. * Extra work orders due to unforeseen problems. | Change Management | 1 | 2 | 2 | 5 | * Project Manager will review any additional work requested. * Technical Communicator will prepare and distribute an approved meeting agenda to all stakeholders prior to each progress meeting. | * Stakeholders adding unrelated tasks to agenda. * Client requests non-contracted work to be performed. | * Project Manager * Technical Communicator * Contractors |
| * Project stakeholders may experience illness throughout the project's life, potentially causing significant disruptions if multiple team members are exposed. * Employee absenteeism or unexpected resignation. * Ineffective/Unavailable training, * Finding, interviewing, and hiring qualified applicants may take longer than allowed in the schedule. | Personnel | 1 | 1 | 1 | 8 | * Work with Human Resources and project team to find qualified applicants in advance of required onboarding. * Ensure handwash stations, toilets, and break rooms are kept clean and stocked. * Disallow employees from coming to the work site while sick without a doctor’s note. * Provide clean drinking water as required. | * Employee gets sick or injured. * An employee is identified as sick while at work. * Flu season, the Superbowl, or religious/national holidays approach. * No applications received. | * Contractors * Functional Managers * Safety Specialist * Facility Managers |

**Key Terms**

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

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

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

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

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

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

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

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

**Risk Owner:** The person who the project manager assigns to watch for triggers and mange the risk response if the risk occurs.

# Schedule Management Plan

## Introduction

The Phase Purple Project’s schedule management plan is part of the overall project management plan. The schedule management plan determines the project’s flow path, dependency, and execution. This plan will discuss the project team’s approach to schedule management, control, changes and thresholds, and scope changes. The purpose of the schedule management plan is to provide the project team and all other stakeholders the ability to see what should be executed when, required sequence, estimated duration of each activity, and the ability to analyze the schedule with a broad or focused view. This plan will include how the project team will monitor schedule progress and manage any changes that affect the baseline schedule after its approval.

## Schedule Management Approach

Using the deliverables in the Work Breakdown Structure (WBS), Phase Purple created the project schedule. The Gantt chart and Network graph count project workdays starting from Day 1, and the Baseline schedule is actual calendar days. Each employee gets 2 days off every week based on the deliverables for that week. The activity definition will highlight what work needs to be complete for each deliverable. Activity sequencing will direct each task to a department or individual. Activity duration will help estimate the time that will need to be calculated to complete the deliverables.

The project team and contractors will review every schedule. Together, the project team and contractors will agree on a schedule that includes different assignments. Lastly, the project sponsor will check the schedule and, if approved, publish the schedule.

The following are listed milestones for the project schedule:

* Completion of scope statement and WBS
* Schedule
* Approval of the project
* Project Start
* Work Area Map
* Creation of roles and responsibilities
* Inventory completion
* Acceptance of final deliverables

As mentioned before, the project team will be responsible for the work package that includes the activity definition, sequencing, and duration of the project team. Included in this, the team will review the schedule. With the approval from the project sponsor, it is the team’s responsibility to follow and stay on track with the baseline schedule. The project sponsors will process this before it is baselined. The stakeholders will be included in this process, and they will review the schedule and make comments on its approval as needed.

## Schedule Control

The Phase Purple Project will be reviewed and updated as necessary every week with a start, finish, and completion percentage discussed in meetings by task owners and the project team.

The project manager is responsible for setting up the weekly meetings and setting up the schedule updates, reviews, and questions that help determine where we are in the project timeline. In the meetings, the project manager will evaluate any impacts that might affect the schedule. The project manager will submit a schedule change request and report on schedule status following the communications plan. The project team will participate in weekly meetings with the project manager. They will communicate any changes to the dates and join in discussing activities, milestones, etc.

The project sponsors will maintain awareness of the project schedule and review and approve it when the project manager submits it.

## Schedule Changes and Thresholds

If any project team member determines that a change to the schedule is necessary, the project manager will meet with the team to evaluate the change. The project manager and project team must determine the tasks that might be impacted by the change and what procedures they will have to employ to see how the change will affect the scope, schedule, and resources. If the project manager determines that any change will exceed the established boundary conditions after this evaluation is complete, the project manager must submit a schedule change request for the sponsors’ approval.

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

* The change increases or reduces the cost of procured supplies and machines by 10% or more.
* The change affects the project scope in a way that it increases or decreases the achievement of deliverables by 10% or more.
* The change is estimated to either reduce or increase the baseline schedule by 10% or more.

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

Once the sponsors review and approve the change request, the project manager is responsible for adjusting the schedule and communicating all changes and impacts to the project team, project sponsor, and stakeholders. The project manager must also ensure that the technical communicator documents and archives all records in the project records repository.

## Scope Change

The project sponsors must approve any changes to the project scope. The project manager and project team will have to evaluate the new scope and reflect any changes to the project schedule. If the scope change significantly impacts the project schedule, the project manager may request that the schedule be re-baselined to accommodate any changes made to the new project scope. Project sponsors must review and approve the change request before the schedule can be re-baselined.

## Sponsor Acceptance

Approved by the Project Sponsor:

Date:

Dr. Rogers & Dr. K.

Sponsors

# Project Status Report

## Project Status Summary Percent Complete: 50%

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Scope | Schedule | Cost | Risks | Quality |

The Phase Purple Project is on schedule. The project is three months long with a budget of $494,530. The third project meeting was successfully conducted on time, and the shop flooring and HVAC systems were constructed. The new equipment purchasing process is in progress. The new equipment will take about 2 to 3 weeks to be delivered. The project risk associated with this is the delays in the delivery of the new equipment.

The project schedule has allowed slight variation with the installation of the machines taking place in August. The schedule accommodates spare time for this between the 3rd and 4th week. The risk associated with this is marked in red, with a maximum of +/- 5% variance in the schedule. All the members must understand the probable risks due to delays in machinery delivery and be prepared to compensate for the lost time if such a condition may arise. Many precautions can be taken to decrease the risks associated with schedule management throughout the project’s duration. Other risks, such as changing regulations, are essential to consider but are not always preventable.

## ****Work Planned for Last Month:****

Last month, Phase Purple prepared and submitted the Project Charter, which includes: The Work Breakdown Structure (WBS), the Communication Management Plan, the Risk Management Plan, and the Schedule Management Plan. Additionally, the design team completed evaluations and recommendations, and the Project Manager established the core members of the Project Team. The Project Sponsors began reviewing the Project Charter last month, and it continued into this month.

## ****Work Completed Last Week:****

## After our third meeting, Phase Purple continued working on constructing the administrative area as per the project schedule. The construction work involved a day trip to certain local stores where organizing containers, office material, and electronics were purchased to furnish the administrative area. The project team also bought the new equipment and furniture to be installed which will be delivered in the coming weeks.

## ****Work Completed Next Week:****

Next week, Phase Purple will continue to purchase new equipment online and/or shop locally for any office materials that are on our list to buy.

## ****Open Issues:****

There are no open issues at this time. The project is on schedule and within budget.

## Open Risks

The Phase Purple Project lists the following as open risks that have the potential to occur at any given time during the project:

1. **Safety Risks:**
   * Electrocution
   * Falls
   * Toxic inhalation
2. **Procurement:**
   * Shipment and delivery delays
   * Talent shortage to operate heavy machinery.
3. **Financial:**
   * Sponsor funding approval; delayed or rejected.
   * Increase in supply cost due to material fluctuation in the market.

## Deliverables and Milestones

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Deliverable** | **WBS number** | **Planned start** | **Planned end** | **status** |
| Initiation evaluation and recommendation | 1.1.1 | 6/1/2021 | 6/3/2021 | Completed |
| Determining project team | 1.1.2 | 6/4/2021 | 6/5/2021 | Completed |
| Develop project charter | 1.1.3 | 6/6/2021 | 6/22/2021 | Completed |
| Project team kick off meeting | 1.1.4 | 6/23/2021 | 6/23/2021 | Scheduled |
| Submit Project charter | 1.1.5 | 6/24/2021 | 6/24/2021 | Scheduled |
| Project sponsor reviews | 1.1.6 | 6/25/2021 | 6/28/2021 | Scheduled |
| Project charter signed | 1.2.7 | 6/29/2021 | 6/29/2021 | Scheduled |
| second meeting | 1.2.1 | 6/30/2021 | 6/30/2021 | Scheduled |
| Develop project plan | 1.2.2 | 6/30/2021 | 7/4/2021 | Scheduled |
| Find contractors | 1.2.3 | 7/5/2021 | 7/11/2021 | Scheduled |
| Work area map and construction | 1.2.4 | 7/12/2021 | 7/21/2021 | Scheduled |
| Submit project plan | 1.2.5 | 7/12/2021 | 7/12/2021 | Scheduled |
| Project plan approval | 1.2.6 | 7/13/2021 | 7/14/2021 | Scheduled |
| Third meeting | 1.3.1 | 7/15/2021 | 7/15/2021 | Scheduled |
| Construct floor and HVAC | 1.3.2 | 7/16/2021 | 7/22/2021 | Scheduled |
| Purchase new equipment | 1.3.3 | 7/16/2021 | 8/14/2021 | In Progress |
| Install new equipment | 1.3.4 | 8/15/2021 | 8/19/2021 | Scheduled |
| Organize | 1.3.5 | 8/20/2021 | 8/23/2021 | Scheduled |
| Testing phase | 1.3.6 | 8/20/2021 | 8/22/2021 | Scheduled |
| User training | 1.3.7 | 8/23/2021 | 8/26/2021 | Scheduled |
| Fourth meeting | 1.4.1 | 8/27/2021 | 8/27/2021 | Scheduled |
| Fire marshal approval | 1.4.2 | 8/28/2021 | 8/28/2021 | Scheduled |
| Risk management closeout | 1.4.3 | 8/29/2021 | 9/2/2021 | Scheduled |
| Check deliverables | 1.5.1 | 9/3/2021 | 9/4/2021 | Scheduled |
| Project lessons learned | 1.5.2 | 9/3/2021 | 9/5/2021 | Scheduled |
| Update files and records | 1.5.3 | 9/6/2021 | 9/7/2021 | Scheduled |
| Approval to close project | 1.5.4 | 9/8/2021 | 9/9/2021 | Scheduled |
| Close contractors | 1.5.5 | 9/10/2021 | 9/10/2021 | Scheduled |
| Submit closing reports | 1.5.6 | 9/11/2021 | 9/11/2021 | Scheduled |

## Open Change Requests

The Phase Purple Project has no open change requests this week.

## ****Key Performance Indicators (KPI's)****

**PV, AC, and EV = $200,703**

**Schedule** - Project is On Schedule

Schedule Variance (SV):   $0

Schedule Performance Index (SPI):  1.00

**Cost** - Project is On Budget

Cost Variance (CV):   $0

Cost Performance Index (CPI):  1.00