**Cost Management Plan**

**D7 Auto Service Center Web-App**

**D7AUTO SERVICE CENTER**

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# Introduction

The Cost Management Plan for the D7 Auto Service Center Web-App project is designed to ensure that all costs that are to be covered, relevant, and associated with the project are efficiently liquidated, and managed throughout the project’s lifecycle. The plans of costing made through the document will be outlining the standards costing of the project as it is measured, recorded, and managed.

**Cost Management Responsibilities:**

* The Project Manager, Andre O. Viernes, will be responsible for the overall cost management of the project for D7 Auto Service Center and will be the primary point of contact for all cost-related issues with the Stakeholder.
* The Documentation Team will be responsible for monitoring and record-keeping of project costs to ensure that the costs will be within the scope of the approved budget.

**Cost Change Approval:**

* The cost changes that will be made during the project’s lifecycle must be approved by the Project Manager, and discussed with the stakeholder before they are implemented.
* Costs that will be rendered are to be recorded monthly and will be measured and reported monthly.

***Cost Measurement & Reporting:***

* The reports regarding the costs are to be presented to the Project Sponsor, and he/she must be given a copy of these reports.

***Budget Format & Standards:***

* The breakdown of the budget, together with the expenses are to be presented using Microsoft Excel to the Project Sponsor.
* The budget will be divided accordingly. It will be divided into individual items as per its cost, together with the computed costing of each item listed.
* Any changes rendered or applied for the project’s monthly reports are to be highlighted.

# Cost Management Approach

The cost management approach for the D7 Auto Service Center shall be adherent to the principles:

**a) Clear and concise cost definitions:**

- The Elite Four team will update and report the pertinent definition of each costing to the project stakeholders. The definition of costs relevant to the project such as, labor, equipment, maintenance, allowances, and contingencies shall be of transparency to the stakeholders.

**b) Budget development and tracking:**

- Through utilization of Microsoft Excel, the project budget will be updated, recorded, and tracked throughout the project’s entire lifecycle.

**c) Cost estimates:**

- The Elite Four team will define the cost estimates, based on actual labor costs, allowances, researched carefully, and in the scope of the provided budget for the said project.

**d) Cost variance analysis:**

- A variance analysis will also be done to identify over-expenditure and/or accumulated savings from the reported costs.

**e) Cost management roles and responsibilities:**

- The roles and responsibilities of each team member will be well disseminated, with regards to costs, constraints, and the likes.

**f) Approval process for changes:**

- A formal process for approving changes from the project manager and the project stakeholders will be made to have transparency with the changes being made

**g) Reporting and Communication:**

- Cost Reports generated through Microsoft Excel will be shared and reported to the project stakeholders.

# Measuring Project Costs

The Measuring of the Project Costs Plan for the D7 Auto Service Web-App will include and detailed and calculated approach for the measurement of the projected project costs using EVM (Earned Value Management). This will involve and need various Earned Value metrics like:

1. The BCWS (Budget Cost of Work Schedule) or PV (Planned Value)

Measures the costs of the work that is budgeted and that is planned to be completed at a specific point in time. This is needed and required for the computation SPI (Schedule Performance Index).

**Example computations:**

To calculate the BCWS (Budget Cost of Work Schedule) or PV (Planned Value), we need to multiply the planned percentage of the completed work by the project budget, and you will get the Planned Value.

Planned Value (PV) = (Planned % Completed) X (Project Budget)

Planned Value (PV) = 30% X (PHP 100,000)

         = 0.3 X (PHP 100,000)

         = PHP 30,000

Therefore, the project’s Planned Value (PV) is PHP 30,000.

**Reference: ​**[1]**​**

1. BCWP (Budgeted Cost of Work Performed) or EV (Earned Value)

Measures the budgeted costs of the work that has been completed at a specific point in time. This is needed and required for the computation of SPI (Schedule Performance Index) and the CPI (Costs Performance Index).

**Example computations:**

To calculate the BCWP (Budgeted Cost of Work Performed) or EV (Earned Value), we need to multiply the Actual percentage of the completed work and multiply it by the project budget.

Earned Value (EV) = % of Completed Work X (Project Budget)

Earned Value (EV) = 40% X (PHP 100,000)

 = 0.4 X (PHP 100,000)

 = PHP 40,000

Therefore, the project’s Earned Value (EV) is PHP 40,000.

**Reference: ​**[1]**​**

1. ACWP (Actual Cost of Work Performed) or AC (Actual Cost)

Measures the actual costs incurred for the works that have already been completed at a specific point in time and schedule. This is needed for the computation of CV (Cost Variance) and CPI (Cost performance index)

**Example computations:**

The Actual Cost is the amount of money that has been spent so far.

For example, if PHP 70,000 has been spent so far; Hence, the project’s Actual Cost (AC) is PHP 70,000.

**Reference: ​**[1]**​**

The metrics above will be used to perform Costs Variance Analysis (CV), Schedule Performance Index (SPI), and lastly the Cost Performance Index (CPI) to measure the project’s cost performance throughout the project lifecycle.

 To help with capturing and recording these metrics, the team will use various project management software that can track, record, and generate reports on these EVM metrics overtime or in real-time. The software must also be capable of making future forecasts of the project costs as it will be used to review costs performance overtime, across work packages or schedule activities.

1. **Cost Variance (CV)**

Measures the difference between the actual costs of the project and the planned costs. This is calculated by subtracting the actual costs from the Actual costs (EV – AC).

**Example computations:**

To calculate the Cost Variance (CV), we need to subtract the Actual Cost (AC) from the Earned Value (EV).

Cost Variance (CV) = Earned Value (EV) - Actual Cost (AC)

Cost Variance (CV) = PHP 40,000 – PHP 70,000

         = PHP -30,000

The project’s Cost Variance (CV) is PHP –30,000, and since it is negative, we are over budget.

**Reference: ​**[2]**​**

1. **Schedule Performance Index (SPI)**

Measures the project's schedule performance ratio by calculating the planned schedule and comparing it to the actual schedule. The ratio is calculated by dividing the EV to the PV. The ratio that will be resulted will be compared, if it is a value of 1 this will indicate that the project is on schedule, while the ratio that will be resulted in a value that is less than 1 indicates that the schedule is behind, while a value that is over 1 show that the project is ahead of schedule.

**Example computations:**

The formula to calculate the Schedule Performance Index (SPI) is given below:

Schedule Performance Index (SPI) = Earned Value (EV) / Planned Value (PV)

Schedule Performance Index (SPI) = PHP 40,000 / PHP 30,000

         = 1.333

Since the Schedule Performance Index (SPI) is above 1, the project is ahead of schedule.

**Reference:** ​[3]​

**Cost Performance Index (CPI)**

Measures the project’s cost performance by calculating the actual costs to the planned costs of the project. This Index is calculated using this formula (CPI = EV / AC). Like the SPI the CPI also uses ratio in determining if the project is over budget, under budget, or right in budget.

**Example computations:**

The formula to calculate the Cost Performance Index (CPI) is given below:

Cost Performance Index (CPI) = Earned Value (EV) / Actual Cost (AC)

Cost Performance Index (CPI) = PHP 40,000 / PHP 70,000

  = 0.571

Since the Cost Performance Index (CPI) is less than one, the project is over budget.

**Reference: ​**[3]**​**

The Cost Management Plan makes sure the project costs are as effectively managed and controlled as possible throughout its project’s lifecycle. By utilizing EVM metrics and calculations. These metrics and calculations help in getting insight and identifying the areas where the project performance health is. And if the project is underperforming it will show it to the project team for them to take appropriate actions on fixing it and bring the project right on schedule and track.

### **Reporting Format**

The reporting format that would be best suited for the cost management plan of the D7 Auto Service Web-App should be a detailed and comprehensive spreadsheet or table, preferably in Microsoft Excel or something similar. Detailing the relevant cost information like project budget, actual cost, projected costs, and any variances or discrepancies and any relevant information should be included in this format.

The format should be easy to understand and be accessible to all stakeholders, the project team, and the project management.

Additionally, the format should include the following in its element for the cost management plan for the D7 Auto Service Web-App.

1. **Cost Management Summary**

This is an overview of the cost management plan, including the approved project budget, cost variance or issues, and actions to take to correct the problem or take corrective actions towards solving cost management related concern.

**2. Budget Breakdown**

This part explains the rational of the budget and explains them in a detailed breakdown which identifies both direct and indirect costing together with the manpower salary.

**3. Cost Variance Analysis**

Analysis of the variances of the project costs between of the budgeted costs. With in-depth explanation and breakdown of the variances between them, the possible impact of them on the project, and actions to take to address these concerns.

**4. Approval**

This is where the project stakeholders and project manager review and approve costs management plan in the documentation.

**5. Appendices**

This section is for supporting and additional documentation and materials, related to the project, such as costs breakdown, meeting recordings, and forms.

The additional changes will be going through a comprehensive overview of the project’s cost management.

### **Cost Variance Response Process**

The Control Threshold for this project is a CPI or SPI of less than 0.8 or greater than 1.2. If the project reaches one of these Control Thresholds, a Cost Variance Corrective Action Plan is required. The Project Manager will present the Project Sponsor with options for corrective actions within five business days from when the cost variance is first reported. Within three business days of the Project Sponsor selecting a corrective action option, the Project Manager will present the Project Sponsor with a formal Cost Variance Corrective Action Plan. The Cost Variance Corrective Action Plan will detail the actions necessary to bring the project back within budget and how the effectiveness of the actions in the plan will be measured. Upon acceptance of the Cost Variance Corrective Action Plan, it will become part of the project plan and 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 project budget/cost changes must be approved by the project sponsor and stakeholders.

1. **Cost change process**:

The proposed change in the costs and project budget must be communicated and approved by project stakeholder in order for the proposed change  
to be effective.

2. **Cost change approval:**

The cost change will only undergo approval after it has been thoroughly reviewed and analyzed by the project sponsor and team and has been properly documented.

3. **Cost change Implementation:**

After the cost change for the budget has been approved it will be implemented according to the project schedule and cost breakdown.

### **Project Budget**

The budget for the D7 Auto Service Center Web-App project is detailed below:

The approved budget: **₱3,034,000**

The project’s duration is 331 days from Planning to Turn Over. Planning, however, will be excluded since the project will begin after the client has been confirmed.

**Salary Breakdown:**

Table Project Budget: Salary Breakdown

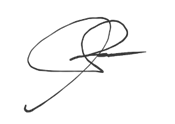
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| --- | --- | --- | --- |
| Position | Salary (Daily) with an expectation of 22 working days per month, excluding holidays and days off | No. Of Days | Total |
| Project Manager | ₱1,613.00 per day | 331 | ₱533,903.00 |
| Product Owner | ₱2,930.72 per day | 331 | ₱970,068.32 |
| Web Developer | ₱1,498.54 per day | 102 | ₱152,851.08 |
| Database Administrator | ₱1,423.045 per day | 87 | ₱123,804.94 |
| Project Coordinator | ₱1,068.36 per day | 331 | ₱353,627.16 |
| Assistant Project Coordinator | ₱909.09 per day | 88 | ₱79,999.92 |
| Total Salary: ₱**2,214,254.42** | | | |

Table Project Budget: Costing

|  |  |  |
| --- | --- | --- |
| **Cost Item** | **Computation** | **Cost** |
| **Direct Cost** |  |  |
| Cloud Deployment & Domain | ₱2,000 (cloud deployment) + ₱1,000 (domain) | ₱3,000.00 |
| Food Allowance | 1270 days (6 members) x ₱150 (food allowance) | ₱190,500.00 |
| Transportation Allowance | 1270 days (6 members) x ₱100 (transportation allowances) | ₱127,000.00 |
| Contingency |  | ₱100,000.00 |
| Manpower |  | ₱2,214,254.42 |
| **TOTAL:** |  | **₱2,634,754.42** |
| **Indirect Cost** |  |  |
| **Utilities** |  |  |
| Internet | ₱2,500.00 x 12 months | ₱30,000.00 |
| Electricity | ₱3,000.00 x 12 months | ₱36,000.00 |
| Office Space | ₱10,000.00 x 12 months | ₱120,000.00 |
| Water | ₱300.00 x 12 months | ₱3,600.00 |
| **Equipment** |  |  |
| Software Used |  | ₱0.00 |
| Devices Used | ₱32,000.00 x 6 (laptops) | ₱192,000.00 |
| Peripherals | ₱3,000.00 x 6 (mouse & keyboard) | ₱18,000.00 |
| **TOTAL:** |  | ₱**399,600.00** |
| **GRAND TOTAL:** ₱**3,033,904.42** | | |

**Sponsor Acceptance**

Approved by the Project Sponsor:



Date: April 20, 2023

Anne Sydney Simpelo

D7 Auto Service Center Owner

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