**Cost Management Plan**

**FOR**

**APWA Accreditation**

**April 1, 2015**

# Introduction

Cost management for the APWA Accreditation project will be accomplished through development and maintenance of the project budget. Thework breakdown structure (WBS) provides the framework for how project costs will be expended. The purpose of the cost management plan is to define the approach the project team will use in developing, tracking and managing project costs. Lastly, this cost management plan will be used to assist the project sponsor, manager and team to analyze, document, and accept or reject any proposed changes to the project budget.

# ROLES AND RESPONSIBILITIES

The project manager will be responsible for planning, managing, expending and controlling project costs and will obtain approval of the project budget from the project sponsor.

The project team is responsible for estimating activity costs, determining a basis for estimates, participating in monthly budget updates and reviews, communicating any variances from expectation dates to project manager and developing preventive and corrective actions relating to cost variances as needed.

The project sponsor will participate in reviews of the proposed budget, approve the final budget before it is baselined and review and approve budget change requests submitted by the project manager.

# COST MANAGEMENT - PLANNING

Project cost management planning will be conducted using the scope statement, WBS, WBS dictionary, resource breakdown structure, schedule baseline and project charter. The following organizational process assets will be considered for use in development of the budget: financial control procedures, budget-related policies, accounting codes, labor rates, standard contract provisions and project files from previous assessements. The project budget will be established using techniques of expert judgement, meetings and use of MS Project to ensure compliance with the parameters established by the project charter and WBS.

Additional costs may be represented in supplies, travel or services procured from outside the project organization. In addition to the costs represented by the project team, these costs are tracked in the cost management plan as well.

Since the project will be completed in conjunction with current employee workloads, there will be no additional capital outlay required for staffing costs. However, to accurately track project expenses, staffing costs required to complete the project will be included in the project budget.

Budget performance monitoring will be performed by the project manager on a weekly periodicity. Project cost performance for the project will be tracked using IFAS accounting software and MS Project. Cost variances of +/- 10**%** will be dealt with by the integrated change control process.

Enterprise environmental factors that influence the cost management plan process include organizational culture and structure, market conditions and stakeholder risk tolerances. Project cost reporting for the project sponsor will be provided by the project manager during weekly meetings. Cost performance will be a standing agenda item at monthly project meetings such that the project team members are aware of status at all times.

The output of the planning process is the project cost management plan, which establishes units of measure, level of precision, level of accuracy, control thresholds and rules of performance measurementto be used throughout the project.

# COST MANAGEMENT – ESTIMATING COSTS

Cost estimation for the APWA Accreditation project is the responsibility of the project manager and team. The cost estimate will be developed, tracked and managed in units of dollars. Cost estimates will be developed at the activity level and will be rounded up to the nearest dollar. This will ensure that costs are identified at the level of detail acceptable to the project sponsor and manager.

The following inputs will be utilized for cost estimation: cost management plan, human resource management plan, procurement management plan, scope baseline, project schedule, risk register, enterprise environmental factors and organizational process assets. Activities will be estimated to the level of detail and reporting agreed upon during project cost management planning, using expert judgement, bottom-up estimating and reserve analysis.

The project includes procurement of a gap analysis consultant that will assist with the submittal of the self-assessment to the APWA. Costs of services from outside the project team will be estimated using expert judgement and vendor bid analysis. Responsive bids from qualified gap consultants will be analyzed andincluded as part of the overall project cost estimate.

The following tools and techniques will be utilized in cost estimation: expert judgement, bottom-up estimating, and reserve analyses. The cost of individual activities will be estimated to the greatest level of specified detail by the project team. The detailed cost will be rolled up to higher levels for subsequent reporting and tracking purposes. Labor costs associate with internal data collection and data and process development will include contingency reserves to account for cost uncertainty.

At the completion of cost estimating, the outputs will include activity cost estimates including labor, supplies, services and travel, documentation of the basis fpr the estimate, assumptions made, known constraints, indication of the range of possible estimates and confidence level of the final estimate.

**COST MANAGEMENT – DETERMINING BUDGET**

Once cost management planning and estimating have been completed, the project budget can be determined. The budget can then be fully vetted by the project manager and team for presentation to the project sponsor. Upon approval of the project sponsor, the cost baseline may be established for the project. Unless modified in the future through a change control process, this baseline will then be the basis for all future cost performance monitoring of the project. The inputs to budget development will include: cost management plan, scope baseline, activity cost estimates, basis of estimates, project schedule, risk register, agreements and organizational process assets.

The tools and techniques utilized for project budget development are cost aggregation of work packages in accordance with the WBS, expert judgement and reserve analysis.

When project budget development is completed, the outputs will be the cost baseline, project funding requirements and project document updates.

**COST MANAGEMENT – CONTROLLING COSTS**

The project’s budget performance will be reviewed and updated on a weekly periodicity with actual expenditures collected and provided by the project manager. Monitoring will include measurements of funds being expended as well as the amount of project work actually being accomplished.

Inputs to project cost control include the project management plan, project funding requirements, work performance data and organizational process assets.

Tools and techniques utilized for project cost control will include earned value management. In particular, the cost performance index will be monitored closely since there is a risk of cost overrun relating to labor. The amount of time required to collect the self-assessment data is unknown. The number of new employees within the department may require more time than estimated for the data collection process. As the project progresses, the project team will develop a forecast for the estimate at completion based on work performance data.

The project manager is responsible for holding weekly budget meetings with the project sponsor and monthly meetings with the project team, budget updates/reviews; determining impacts of cost variances; submitting budget change requests; and reporting budget status in accordance with the project communication management plan.

The project team is responsible for participating in monthly budget updates/reviews; communicating any variances from expectation dates to the project manager; and participating in cost variance resolution activities as needed.

Project cost control outputs will include work performance information relating to cost variance, cost performance index, cost forecasts, change requests, project management plan updates, project documents updates and organizational process assets updates. These outputs will facilitate the project sponsor’s awareness of the project budget status and review/approval of any budget change requests submitted by the project manager.

Project cost control will include boundary conditions approved by the project sponsor to establish the cost parameters within which the project is expected to operate. Any event which may potentially cause a budget change which exceeds these boundary conditions must have a budget change request submitted and approved by the sponsor before the budget change is made. The project will use a change threshold of 10% for cost performance.

If any member of the project team determines that a change to the budget is necessary, the project manager and team will meet to review and evaluate the change. The project manager and project team must determine which parts of the project 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 overall project costs. 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 following conditions exists:

* The proposed change is estimated to reduce the cost of an individual work package by 10% or more, or increase the cost of an individual work package by 10**%** or more.
* The change is estimated to reduce the project budget by 10**%** or more, or increase the project budget by10%or more.

Any change requests which are below these thresholds may be approved by the project manager.

Any changes in the project scope, schedule or quality requirements, which have been approved by the project sponsor, will require the project team to evaluate the effect of the change(s) on the current budget. If the project manager and project team determine that the change(s) will significantly affect the current project budget, he/she may request that the budget be re-baselined in consideration of any changes which need to be made as part of the revision. The project sponsor must review and approve this request before the budget can be re-baselined.

The outputs of project budget control include work performance information, cost forecasts, change requests, project management plan updates, project documents updates and organizational process assets updates. These outputs will allow the project sponsor, manager and team to be fully informed of the project’s budget performance to date, as well as any cost trends and their expected effects on overall project cost performance.

**Sponsor Acceptance**

Approved by the Project Sponsor:

Date:

Pat Thomas

Public Works Director