

Cost Control / Earned Value

Effective Date: January 19, 2010

Status: Revision 1

Supersedes: NA

Document Owner: Chief Engineer

1. Scope

This process applies to the collection of all cost related data, incorporation into the PMRS Tools and the generation of phased forecasted costs to complete. This process is a complement to the Cost Control / Earned Value Process Map.

2. Purpose

This document establishes a WSDOT standard methodology for the collection of all cost related data and the generation of phased forecasted costs to complete.

3. Roles and Responsibilities

The identified roles are provided as a guide to assigning the tasks included in the PMRS processes. Each region has the flexibility to delegate the role of Project Manager (and other functions) to the appropriate functional level to meet project and project office needs and to accommodate current and planned organizational structures.

3.1 Project Engineer/Manager (PE/PM)

- Approve Cost Control and Earned Value reports.
- Initiate the Internal Scope of Work Agreement Change Management Process if necessary.
- Determine the appropriate forecasting method.
- Ensure the Project Team provides input on earned value management.

3.2 Team Lead/Project Control Specialist

- Responsible for ensuring that Cost Control and Earned Value reports are prepared, reviewed and approved.

4. Cost Control / Earned Value Process Steps

The following process steps are taken from the Cost Control / Earned Value Process Map. The sub-numbers listed below correspond to the numbered activity on the process map. For example, item 4.1 corresponds to activity 1 of the process map.

4.1 Enter Cost Data into PMRS

Team Lead/Project Control Specialist:

- Enter all project cost data: which include budgets, contracts, contract changes, progress and any other cost related data into PMRS. This information is collected from the Project Team, including Specialty Groups.
- Actual costs are automatically downloaded from TRAINS/CAPS.

4.2 Review Project Costs for Compliance and Accuracy

Team Lead/Project Control Specialist:

- Ensure cost data is coded properly. Examples of cost codes are WBS and funding source such as Nickel or TPA.
- Project documents for review include Field Note Records (FNR), invoices, time sheets, etc.

4.3 Input New Budget Items and Budget Changes

Team Lead/Project Control Specialist:

- Process all changes to the budget.
- Input each Control Account which is the level of detail at which cost and schedule are integrated.
- Refer to the Control Account Guidelines.

4.4 Input New Construction Contract Commitments and Changes to Existing Commitments

Team Lead/Project Control Specialist:

- This includes supplemental agreements, change orders, potential changes, trends, contingency/risks and WSDOT internal scope of work agreement changes.

4.5 Costs to Date Tracking Process

Team Lead/Project Control Specialist:

- Actual costs are automatically downloaded from TRAINS/CAPS.
- Estimate outstanding expenditures per Cost to Date Tracking Process.

4.6 Update Physical Progress and Schedule Information

Team Lead/Project Control Specialist:

- Update physical progress, remaining durations, costs and other schedule information in PMRS.

4.7 Cost to Date Report

Team Lead/Project Control Specialist:

- Generate and distribute Cost to Date report with costs to date only.

4.8 Determine Forecast Method and Produce Estimate to Complete Data

Project Engineer/Project Manager/Team Lead/Project Control Specialist:

- Determine forecasting method:
 - Current trends
 - Remaining to be spent

- Remaining to be earned
- Revised estimate
- Budgets, commitments, claims and pending claims are included in the analysis.
- Forecasts are for the remainder of the project regardless of funding.

4.9 Estimate at Completion Report

Team Lead/Project Control Specialist:

- Generate draft estimate at completion report.
- Draft report includes cost to date and estimate to complete data.

4.10 Perform Aging on All Cost Data

Team Lead/Project Control Specialist:

- All cost data is distributed between the schedule dates for each Control Account. This provides an estimated spend/cost curve.
- Data should be reviewed on a monthly basis.

4.11 Draft Cost and Earned Value Reports

Team Lead/Project Control Specialist:

- Draft cost reports should include:
 - Actual versus planned
 - Variance
 - Aging/forecasts
 - Budget status
 - Other reports as requested
- Draft earned value reports should include:
 - Earned value analysis
 - Actual versus planned
 - Schedule Performance Index (SPI), Cost Performance Index (CPI) and To Complete Performance Index (TCPI)
 - Cost Variance (CV) and Schedule Variance (SV)

4.12 Review Draft Cost and Earned Value Reports

Project Engineer/Project Manager:

- Review draft Cost and Earned Value reports and resolve issues.

4.13 Is Funding Adjustment Required?

Project Engineer/Project Manager:

- Determine if funding adjustments are needed based upon Cost and Earned Value reports and initiate Internal Scope of Work Agreement Change Management Process if necessary.

4.14 Approve Cost and Earned Value Reports

Project Engineer/Project Manager:

- Approve Cost and Earned Value reports.
- 4.15 Issue Approved Cost and Earned Value Reports
Team Lead/Project Control Specialist:
- Issue final Cost and Earned Value report.
- 4.16 Internal Scope of Work Agreement Change Management Process
Project Engineer/Project Manager:
- Initiate the Internal Scope of Work Agreement Change Management Process if necessary.
- 4.17 Identify Cost Issues
Project Engineer/Project Manager/Team Lead/Project Control Specialist:
- Identify cost and earned value issues and resubmit report for review and approval.
- 4.18 Revise Cost as Necessary and Resubmit
Team Lead/Project Control Specialist:
- Resolve cost issues and resubmit reports for review and approval.

5. Term

This standard is effective immediately upon signature and continues in force until modified in writing by the Chief Engineer, or his/her designee.

6. Exemptions

Variance from this process requires approval of the Chief Engineer, or his/her designee.

7. References

- 7.1 Executive Order Number: E 1032.01 – Project Management, July 1, 2008
- 7.2 Executive Order Number: E 1042.00 – Project Management and Reporting System, July 1, 2008
- 7.3 Project Management Web Portal. Copies of all PMRS policies, processes, procedures and guidance documents are available here: <http://wwwi.wsdot.wa.gov/Projects/PMRS>
- 7.4 Cost Control / Earned Value Process Map
- 7.5 Cost to Date Process and Map
- 7.6 Internal Scope of Work Agreement Change Management Process and Map
- 7.7 Contract Change Management Process and Map
- 7.8 Control Account Guidelines