

Project Controls for Design Projects

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Our Services and Solutions

- Project Delivery
- Project Controls
- Capital Project Management
- Program Management
- Master and Construction Scheduling
- Estimate Evaluation and Budget Preparation
- Cost Controls
- Change Controls
- Trends
- Forecasting
- Manpower Planning
- Cash-flows
- Risk Management
- Stochastic / Monte Carlo Simulation
- Earned Value Management
- Integration of Scope - Cost - Schedule and Resources
- Progress Reporting



Your Project Controls Solution Center

Check out our web site @ www.pmsvs.com

In addition to producing the PSE documents on-time and on-budget the A&E is typically responsible for delivering a project that supports the owner's construction budget and schedule constraints.

Project controls in the design phase include :

- Master Schedules
- Engineer's Estimates
- Cost Evaluation and Budget Preparation
- Cost Controls
- Risk Identification and Mitigation
- Earned Value Management
- Progress Reporting

In conjunction with K/J Consultants and CMG, Inc, we developed a project delivery system for the Port of Seattle that supports Program Management of the Capital Program and Project Controls of individual projects to include:

- Development of **SPOTS**, a programmatic project controls database with functionalities including:
 - * Master Schedules
 - * Cash Flows that integrate with master schedules
 - * CIP Inventory
 - * Cost Controls
 - * Change Controls
 - * Trends
 - * Monthly Reports

- Master Schedule Development and Surveillance of design, permitting and construction schedules
- Evaluation of Engineer's Estimates and Variances
- Preparation of Estimate of Probable Cost and Budgets to include applicable construction markups and Soft Costs
- Risk Management and Stochastic Cost Evaluation utilizing Monte Carlo simulation technique
- Claims Analysis and Defense
- Progress Reports Implementation and Training

Master Schedules:

We have developed a master schedule template in Microsoft Project that facilitates project coordination and on-time delivery of a project. The template includes major design, permitting, and construction milestones utilizing the CPM scheduling technique.

Engineer Estimates:

Engineer Estimates are prepared in different formats. Our team encourages utilization of a unified cost structure e.g. CSI master format for all projects in a CIP program. This facilitates cost comparison - bench marking and effective cost management. Additionally, it's important to ensure the applicable markups on the estimate such as overhead and profit; contingencies and price escalation which currently is a challenging issue for public entities with tight budget constraints.

Cost Evaluation and Budget Preparation:

As the design achieves major milestones we evaluate variances to previous estimates and prepare reasoning for the cost variances and possible path forward to mitigate cost risk for the project. We prepare Estimates of Probable Costs which are set as the basis for the project budget.

Cost Controls:

We detail our cost into smaller units such as departmental budgets and cost elements for efficient cost controls. Expenditures are tracked against budget elements. In combination with the trending system we are able to forecast cost variances and maintain an effective change management of scope/cost variances.

Risk Identification and Mitigation (Risk Register):

Our approach includes:

- Identifying and Analyzing Risk
- Estimating Impacts
- Establishing a Plan of Action

We estimate cost and schedule risk using stochastic ranges and Monte Carlo simulation. In addition to advising the client it's contingency risk and comfort levels, we prioritize and advise the client of critical issues.

Progress Reporting:

We gather cost and schedule data into a report format that is credible and highlights major concerns and solutions. We also assist with special analysis and ad-hoc reporting.