AACE® International Recommended Practice No. 35R-09

DEVELOPMENT OF COST ESTIMATE PLANS – AS APPLIED FOR THE BUILDING AND GENERAL CONSTRUCTION INDUSTRIES

TCM Framework: 7.3 – Cost Estimating and Budgeting

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Note: As AACE International Recommended Practices evolve over time, please refer to www.aacei.org for the latest revisions.

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Disclaimer: The opinions expressed by the authors and contributors to this recommended practice are their own and do not necessarily reflect those of their employers, unless otherwise stated.

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INTRODUCTION

Scope

This recommended practice (RP) is a guideline for the development of cost estimate plans for the building and general construction industry. With reference to the Total Cost Management (TCM) Framework [1], this document addresses the need to develop effective estimate plans.

Purpose

This RP is intended to provide a guideline (i.e., not a standard) for establishing and communicating how to prepare, review and approve an estimate plan.

Background

The basic principles of cost estimate plans can be applied to various contracting strategies, project execution approaches and asset owner configurations in the building and general construction industries. Some key principles are:

- Preparation of an estimate plan helps to ensure successful estimate completion in an effective and timely manner.
- Engaging key stakeholders in estimate planning prior to starting the estimate improves the likelihood of meeting estimate objectives.
- The estimate plan defines what information is required from who and when.
- An approved estimate plan provides a duly authorized basis to proceed with the estimating effort, clarifying requirements and responsibilities.

RECOMMENDED PRACTICE

This recommended practice is divided into two main sections:

1. The *estimate planning process* that defines the main steps and discusses issues to be considered in preparing an estimate plan.
2. The *estimate plan format and content* that provides a suggested template for an estimate plan along with annotations. It may be modified for specific situations.

Estimate Planning Process

In general a separate estimate plan will be developed for each individual estimate. Some projects may lend themselves towards having a single estimate plan for all phases of the project.

This section defines the main steps and discusses issues to be considered in preparing an estimate plan. Figure 1 illustrates how the estimate plan is developed.
Prepare Draft Estimate Plan → Estimate Plan Reviews → Estimate Plan Approval

Source Materials
- Owner estimate requirements including accuracy & review/approval timing.
- Contractor review/approval process(es).
- Project scope & strategy basis including alternative scenarios & known site conditions.
- Current schedule.
- WBS, code of accounts, estimate formatting and work packagers or work packaging basis.
- Risks & opportunities from prior phase.
- Lessons learned from prior phase and projects.
- Project historical information, estimating tools & estimating personnel.

Figure 1 – Estimate Plan Development Process

Sources for Estimate Plan Development

It is recommended that an estimate plan is prepared prior to development of the cost estimate. In general, the responsibility is with the lead estimator of each organization to develop an estimate plan that will satisfy the stakeholders’ needs.

Contractor completion of an estimate is only the beginning of the owner’s approval process; therefore it is critical, regardless of contract form, to ensure alignment with timing of estimate review and delivery requirements at project initiation. Owner organizations may have predetermined dates when approvals are considered, for example, at specific board meetings whose agenda is set several months in advance. The estimate plan needs to align with the organization’s appropriation process. Delays in the estimating process may cause the project to miss a critical window of opportunity. The timing and process for owner budgeting decisions need to be understood.

Updated scope and project execution plan information is critical to estimate planning. The project execution plan describes contracting strategies, work schedules (e.g. crew shift, overtime), labor sources, material procurement, and so on. The use of checklists in the estimate plan can be an effective aid to ensure portions of scope are not omitted. The estimate plan should ensure that the estimating deliverables and controlling documentation are identified for each portion of scope and corresponding project execution strategy.

The current schedule is used to analyze resource requirements and constraints including but not limited to weather considerations, planned outages, coordination with regulatory authorities and utilities, and work within an existing operating facility.

Estimate data (quantities, hours, costs) should be coded in a manner that considers how the estimate is prepared (including related source data), reviewed (including benchmarking) and how it will be used for cost control.

Recasting an estimate consumes valuable resources; poorly formatted estimates may result in situations where the project team takes several months to establish control. With reference to AACE International Recommended Practice No. 20R-98 Project Code of Accounts [3], the contractor may need to submit its project code of accounts to...