

Who's Responsible?

Analyzing Cost and Schedule Issues on Construction Projects

BY MICHAEL PURTELL

Schedule delays and cost overruns are constant threats to construction projects. When they do occur, determining responsibility is a major challenge and can be a point of contention. Oftentimes, it is only after the project has suffered negative effects that their causes are given the attention they deserve. Once a party finds a delay or cost overrun, identifying the applicable contract requirements is critical for determining responsibility and assessing entitlement to time extensions and/or additional compensation. However, contractors can take several proactive steps to assist in resolving these matters when they occur. These can include documenting the project's baseline, identifying variations to the baseline, and maintaining a contemporaneous record.

The concepts of time and cost are interrelated components of successful construction project delivery. Schedule delays and cost overruns are usually identified and quantified through measurements against the project's baseline schedule and estimate, respectively. In either scenario, the primary question that must be answered is, "What is the basis for measuring changes?" In all cases, careful and deliberate analysis of the contract documents at the outset of a project is necessary to determine the foundation for the project's baseline schedule and baseline estimate. This analysis should be aimed towards identifying the contract deliverables as well as the responsibilities of various stakeholders, as ambiguity can result in areas of contention. Notice provision requirements, potential weather impacts, receipt of design information, permit approvals, and local code requirements can all be examples of contract deliverables or stakeholder requirements and responsibilities that contractors must consider. Documenting what may be unknown—such as the impacts from RFIs, change orders, unforeseen conditions, force majeure events, etc.—during early schedule development is also important.

After reviewing pertinent information and defining the baseline schedule and baseline estimate, contractors can evaluate any deviations. Including certain schedule activities, logic ties, or both in the baseline schedule can help the parties identify and monitor

the impacts of variations as the schedule is updated throughout the project. This process can assist with describing the impact associated with variations surrounding a given stakeholder's responsibilities on the project and assigning responsibility for those impacts. Regarding the baseline estimate, contractors can use specifics such as quantities, manpower, and budgeted costs to measure and report progress and forecast the impact of variations. Recording contemporaneous data applicable to progress, such as the items discussed above, against these baselines is an important step towards timely resolving disagreements between the parties. More contemporaneous documentation results in a fairer and more tenable outcome for all parties, as this documentation is typically the best record of what actually happened on a project. In instances where less contemporaneous data is available, delayed resolutions are common.

Retroactively assessing responsibility for such issues is a time-consuming and costly task with an outcome that is frequently dependent on the amount and quality of information available. However, equally as important is the ability of those analyzing the matter at hand to understand and consolidate the facts into a thorough, concise, and understandable summary of why the delays and cost overruns occurred, as well as who is entitled to relief. The timely resolution of these complex issues benefits from expert analysis of contemporaneous data, development of meaningful visual representations of the data, and effective presentation of the facts to project stakeholders. ♦



Michael Purtell, a senior managing consultant with Interface Consulting, provides expert services on complex engineering and construction projects across a variety of industry sectors. Mr. Purtell analyzes change order management, construction defects, planning, and procurement, among other issues, and has provided expert testimony relative to construction management, damages, and schedule delays. Formed in 1986, Interface has been a member of ABC for over 25 years.