

Bay Area Metro Commission Workshop

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FTA Risk Assessments

- FTA Risk Assessments and requiring projects to maintain a risk register have been invaluable to identify "higher risk activities" for extra attention and necessary resources
- Risk registers have highlighted areas of potential issues, allowing for proactive actions to head-off cost and schedule impacts
- Importantly, mitigations should be assigned to a dedicated project team member, and required actions should be tracked for timely completion
- Over time, FTA has developed a robust risk assessment process that serves projects well and uses a **P65%** (probability) for cost and schedule
- The FTA risk model uses factors developed from a study of cost overruns and schedule delays from prior projects
- In more recent times, FTA has conducted these assessments in a streamlined manner (EPD) with results that have withstood the test in predicting revenue service dates and the corresponding budgets



Partnerships and Relationships

- Strong relationships between the project sponsor leadership, project teams and federal staff have been critical to ensure success; direct, candid and transparent discourse ensured that success
- FTA fully understands that certain issues take time to address and bring to resolution.
- But, you have to come to FTA early; it is more important to demonstrate what you are doing about a problem, than that a problem occurred
- FTA/PMOC access to the project director and team should be unrestricted
- Communications should take place often and immediately when required to address an issue. We have a common goal in getting the project to the finish line



Supportive Reviews

- Value Engineering, Constructability Reviews and Peer Reviews have proven successful on projects, especially where the PMOC was brought aboard early to flush out impacts and opportunities in a timely manner
- Also, the FTA Construction Roundtable has proven to be an ideal opportunity for project sponsors to share battle stories and gain from the interaction with peers
- A direct line of communication with the agency's CEO were very effective
- This action by FTA (or any oversight entity) was appreciated by the project teams to bring action and resources, where the project team may not have the authority or responsibility for some larger agency actions that may be needed



Costs

- Project budgets and schedules are usually developed by a consultant team very early in the process, and time is money; these two key items are the primary measuring sticks of a successful project.
- The consultant team often creates a schedule and/or budget the owner wants to hear, versus a harsh reality for schedule and cost
- Final cost projections and schedule forecasts must improve; if cost overruns take place, the baseline assumptions were too optimistic
- The project budget and schedule should be revisited at the 30%, 60% & 90% design thresholds, and just before issuing bids Operations should be brought in early to weigh in and communicate their requirements for inclusion in the design



Costs – Delivery Method

- Contracting/delivery method must match the project to support a robust interface with relevant public agencies.
- Some projects are just not suited for Design-Build, and others are not suited for Design-Bid-Build.
- The permitting process in many cases is best left to the project sponsor to manage; Contractors cannot accurately estimate the time to obtain City and other third-party approvals, ex. Traffic Control Plans and Resource Agency (Corps of Engineers)
- More recently, the Progressive Design Build delivery method has demonstrated value to project sponsors for the following reasons:
 - Risk is controlled by the Progressive Design-Build process through design collaboration and open book pricing prior to negotiating construction price
 - Owner controls when to initiate negotiations
 - Ability to incorporate stakeholder input during design without triggering construction change orders
 - Flexibility to execute early works packages during design phase Owner has ability to take “off ramp” if agreement can’t be reached on construction price



Schedule - Utilities

- Better definition of utilities is key to avoid tunnel collapses and other mishaps that cause significant delays
- Advanced utility relocations most always take longer than anticipated; this creates a conflict with the follow-on contractor for scheduled access to the site - Keep with mainline contractor
- Spend the time and money for an aggressive utility identification program which includes extensive potholing
- Create a dedicated team to interface with each utility agency
- Survey verification for utility relocations are critical when installing new utilities to ensure the contractor is properly documenting the as-builts
- For utility relocations or installations on critical path, the contractor should consider having additional materials on hand in the event a differing site condition is observed



Good project management

- Lesson Learned – take full advantage of lessons learned from previous projects or multiple projects in the program
- Owner should retain control; the pass over to design-build contractor has yielded poor results at best with several major, impactful problems. Owner should retain quality control
- Conduct partnering sessions with Contractor principals; it provide a forum to assess individuals and most importantly assessment of relationships between parties



FTA Project Oversight

- FTA's robust oversight program that utilizes PMOCs, engineering firms, to assist in overseeing its major capital projects has served it well with PMOCs and SMEs forecasting problems beyond monitoring
- The program addresses issues and challenges on all aspects of a project, primarily project budgets, contingency levels, schedules and scope. The program also looks at safety, risk, quality, environmental impacts, real estate and legal trends on a project
- Other federal agencies and DOT modes have recognized the value in trying to emulate the FTA oversight model. Further, project teams have opted for an increased oversight on their project; sometimes preferring the FTA oversight engagement on a more frequent basis





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