

CSU8 Estimate Development Methodology

Construction Contracts Active

- The Resident Engineer developed a detailed Forecast at Completion for each active contract. This detailed forecast included a thorough review and quantification of potential changes above Bid Value and Executed Contract Modifications related to:
 - 1) Changes to Current Contract Quantities for Unit Price Pay Items
 - 2) Police Detail Requirements
 - 3) Pending Contract Issues
(Includes design updates, schedule initiatives, scope transfers not yet in a contract modification)
 - 4) Pending Contractor Claims
(Includes issues claimed by the contractor to be changed conditions against the current contract such as differing site conditions and schedule changes)
 - 5) Future Allowance
(An assessment of cost risk on to-go contract work due to not yet identified events and changes that will impact the contract forecast at completion)

Substantially Complete

- Assessed outstanding issues and contractor claims.
- Future Allowance was set to zero.
- Unit priced pay items were reviewed to reflect final quantities.

Unawarded

- The majority of unawarded contracts have been completed through detail design. Detail estimates reflecting this level of design were used as the base estimate for CSU8. Escalation has been included at 2.35% per annum.
- Known design changes to the base estimate were incorporated in the total estimate for each contract.

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- A Pre-Bid design evaluation contingency was included to allow for further changes that may arise during preparation of the actual bid documents and bid addenda.
- An assessment of competitive market discounts and potential change allowance during construction were incorporated in the CSU8 estimates.

Force Accounts/ISA

- Assessed the to-go requirements for Railroads, Utilities, Interagency Service Agreements (ISA), and Metropolitan District Commission (MDC) contracts.
- Project Assessments were reviewed with the above entities as well as the Resident Engineers as appropriate.
- Priced the to-go requirements based on an analysis of to-date commitments and payments and remaining scope.

Right of Way

Settlements in excess of pro-tonto values

- Established estimated value for cases that have been settled or are close to conclusion.
- Added costs for other cases that have been filed based on estimates that were developed for the specific circumstance.
- Added costs for other cases that have not been filed but where there is a high probability of litigation. A rough order of negotiated cost was assigned for those cases based on current understanding of the positions of both parties.

Relocations

- Identified the to-be relocated parties and priced accordingly

Acquisitions

- Using the latest design scope information and similar type acquisitions/easement extensions, pricing was determined for the remaining property acquisitions and lease extensions.

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Section Design Consultants

- Assessed to-go requirements for design and construction phase services (CPS).
- Construction Phase Services, which are the majority of the to-go costs, were based on a review of the status of relevant construction contracts, design changes, contractor submittal volume plus any identified nonstandard services.
- Pricing based on an analysis of to-date commitments and payments and to-go scope.

Management Consultant (Joint Venture and MTA)

- Established to-go Project Management scope of services.
- Identified position by position, by month, to-go staffing requirements through project completion.
- Identified other staffing conditions such as overtime levels, position affiliation, indirect rates, etc.
- Summarized staffing needs, priced overall staff.
- Using the to-go scope of work, identified direct expense scope.
- Quantified by quarter, the to-go direct expense expenditure requirement relying on historical information and an assessment of the remaining work.
- Consolidated labor and labor related costs with direct expenses and produced a time phased project management budget requirement.

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Insurance Costs

- Quantified the to-be insured activity for Workers Compensation and General Liability for the balance of the project
- Based on the insurer's requirement per insured value, established a to-go insurance premium for workers compensation, general liability and the other miscellaneous lines of insurance coverage.
- Summarized the new funds requirement and include in the to-go budget requirement.