

**Work Plan B.52-01 Cathodic Protection - Anode Sled and Cable Replacement  
Project B&C and Estimation Review**

**Scope:**

The scope of services will include provision of design/construction engineering expertise to perform the following services at the request of BART. Plans not reviewed at time of proposal due to SSI requirements.

Constructability/Biddability review of contract design at 100% and IFB design stages:

- Become familiar with drawings, specifications, cost estimates, schedules, and other contract documents to evaluate whether details of the scope can be built per plans, specifications, and schedule; that the contract documents will facilitate the receipt of reliable, responsive bids; and reduce post-bid contract changes. Assumption: SSI clearance within 4 weeks, 20 sheets to be reviewed for 100% (4hrs/sheet) and for IFB (1hrs/sheet). 20hrs for spec review, 16hrs additional for other disciplines review of plans and specs.
- Attend meetings with the design team to discuss and understand the project details, including scope, work locations, and known constraints. At this stage, provide a review of the available developed design at a depth commensurate with the level of detail provided. Assumption: 10 meetings, 1hr each, attended by 2 individuals.
- Conduct field visits and inspections to understand existing conditions and potential construction/design issues. Assumption: one site visit to view the transbay tube, three personnel for

8 hours, SSWP, SAR and coordination to be done by BART. Parsons personnel will be limited to land side work and within the transbay tube.

- Assess the possibility of differing site conditions and whether additional field investigation/survey is recommended to better identify potential construction conflicts. Suggest alternatives for possible routing, equipment locations, footing modifications, and excavations to avoid or limit the possibility of conflicts in areas where excessive hidden obstacles or other differing site conditions can be anticipated. Assumption: included in plan sheet review, assumed there is sufficient information in the plans.
- Review site access restrictions, space requirements for equipment and construction activities, and alternate routing of utilities to conserve space or limit material quantities. Assumption: included in plan/spec review, assumed there is sufficient information in the plans.
- Review provisions of allowable access times associated with access to the Right of Way. Review construction phasing to verify plans and specifications provide a feasible option for construction. Assumption: included in plan/spec review, assumed there is sufficient information in the plans.
- Contract documents should include mitigations for impacts of the work, including access restrictions. Assumption: included in plan/spec review, assumed there is sufficient information in the plans and specs.
- Verify that the scope of work is clear and consistent across contract documents to eliminate ambiguities and increase the biddability of the contract. Assumption: included in plan/spec review, assumed there is sufficient information in the plans and specs.
- Evaluate the construction schedule assumptions for reasonableness, recommending modifications as appropriate based on potential deficiencies identified.
- Identify hours of work, staging areas (day shift, night shift), and required District support. Assumption: included in plan/spec review, assumed there is sufficient information in the plans and specs.
- Review unresolved comments provided by previous reviewers and provide recommendations for comment resolution. Assumption: 20 unresolved comments, 1hr per comment.
- Contribute to the existing risk register by including documented concerns that may impact project performance by working with the project manager. Therefore, the risk can be managed from bid to closeout phase of the contract. Assumption: included in plan/spec review, assumed there is sufficient information in the plans and specs.
- Provide other technical support or services as required. Assumption: 16hrs of technical support.
- Provide comments on language/notes on the contract documents that may be misinterpreted and lead to COs or confusion. Assumption: included in plan/spec review, assumed there is sufficient information in the plans.
- Review drawings from Contractor's perspective - identify where our design/drawing package is weak, unclear, vague, un-constructible, conflicting, or not biddable. Assumption: included in plan/spec review.

Cost estimate peer reviews of contract design at the current 100% / including but not limited to the following tasks (assumption: all work not to exceed budgeted hours on the form 60)

- Assess schedule and estimate for assumptions.
- Review estimate mark-ups and suggest adjustments for current bid.
- Check estimate for pricing accuracy.
- Identify scope missing from the estimates.
- Check Bid Schedules for the Typical BART Items and Allowances

**Prime: Parsons Transportation Group**

**Subconsultants: None**

**Total Work Plan Value: \$ 136,374**