

BART Agreement Number: 6M8147

Approval Date: 9/09/19

Work Plan No. B.06-01– C, M, and W Line Fence Replacement Project

Scope:

The Scope of Work on this Project consists of the design to remove and replace existing ROW fences and gates for three of the six associated construction contracts, as listed below. CONSULTANT will provide Design Documents for inclusion in public works contracts for the following contracts:

- Contract No. 15TC-143: C Line Fence Replacement
- Contract No. 15TC-153: M Line Fence Replacement
- Contract No. 15QN-120: M and W Line Fence Replacement

The Scope of Work for this Work Plan includes the following:

- a) Conduct site visits and site reconnaissance to identify existing site conditions and work required. This consists of the following tasks:
 - i. Review topographic information provided by BART and perform supplemental site field survey as necessary to identify existing fence alignment.
 - ii. Identify existing utilities along the fence line replacement limits and utility conflicts for BART review and direction.
 - iii. Identify site grading and drainage conditions along the fence line replacement limits. Areas of concern will be evaluated by a Geotechnical Engineer for recommendations and report preparation to identify drainage improvements, slope stability concerns, and structural footing improvements for the special fence line foundation.
 - iv. Identify areas where high security fence and/or fence type other than chain-link design is needed.
 - v. Identify areas of Contractor staging and access, and traffic control.
- b) Review as-builts and collect data from BART's database. BART will provide some as-builts but additional as-builts may be required.
- c) Design replacement fences and gates per the latest BART Facilities Standards (BFS) Rev 3.1.2. BFS 3.1.3 is anticipated to be released in the Fall 2019; if directed by BART, select criteria, standard drawings, and specifications from the anticipated release will be incorporated in the design. Where non-BFS Standard fences and gates are proposed, applicable codes and industry practices will be followed.
- d) Design fence and gate grounding details per BFS Standards for both BFS and non-BFS fences and gates.
- e) Design fence replacements along the existing alignment within BART property. Property boundary surveys will not be performed.

- f) Conduct constructability review. Ease of construction and constructability will be one of the concerns due to the limited work window and available space.
- g) Provide an engineering design to include Right of Way plans with parcel information as necessary, Site Plans, Construction Access and Staging Plans, Demolition, Grading and Drainage Plans, and Traffic Control Plans. Specifications for all related work.
- h) Structural calculations and details for Non-BFS gates and fences including high security gates and fences, footings, foundations, and related work.
- i) Provide a cost estimate to be supported with design quantities and details, information from previous BART fence replacement projects as available, and fence vendor input as necessary. For specialty fence items, provide a bottom-up estimate.
- j) Attend bi-weekly coordination meetings and other meetings as needed with BART Stakeholders.
- k) Attending utility coordination meetings and provide utility coordination support.
- l) Obtain topographic mapping for the Contract 15QN-120 limits and for additional areas along the BART System as follows: M Line (MP 18.65 thru 18.85) and W Line (MP 22.1 thru 23.3). M Line and W Line Mile Posts include stations. Topography at stations to include parking lots and/or structures within BART property lines (see Exhibit A).
- m) Provide design services during construction (DSDC) based on an assumed twenty-four month construction duration.

Prime: PGH Wong Engineering, Inc.

Subconsultant	Amount	DBE (Y/N)	SBE (Y/N)
Cornerstone	\$80,000	Y	Y
Moffatt Nicol	\$81,569	N	N
Towill Inc.	\$120,000	N	N
AMC	\$65,000	Y	Y
Parikh Consultants	\$75,000	Y	Y
FW Associates, Inc.	\$40,000	Y	Y

Total Work Plan Value: \$2,392,677