

BART Agreement Number: 6M8143

Approval Date: 03/23/2021

Work Plan: No. B.13-01 – Daly City & Hayward Yard Control Tower Access

Scope:

2.0 SCOPE

Daly City

The project scope includes design services (including bid support and during construction) to install a new exterior exit door as a new point of access as well as to install a landing and custom-fabricated metal stair leading from this new exit door to the ground level.

Hayward

The project scope includes design services (including bid support and during construction) to install new exterior exit doors (2 total) as a new points of access as well as to install a landing and prefabricated metal stair leading from this new exit door to the ground level. Additionally, the design scope includes a new walkway that connects these new points of access to the existing primary point of access and for additional custom-fabricated metal stairs to connect to the adjacent lower substation roof below from this new walkway.

The proposed construction would be performed by BART personnel and the doors, walkway, and custom-fabricated stairs procured by BART.

The design services proposed herein are needed to confirm that the proposed stair layout is feasible, determine the design loading, and provide the design plans for the stair/walkway improvements to be installed by BART personnel.

Task 1 – Conceptual Design

For each location consultant shall:

- Attend bi-weekly project meetings and other meetings as necessary
- Review as-builts and existing building features.
- Identify physical constraints and limiting dimensions
- Identify code requirements
- Engineer and Architect to perform site visit to confirm existing conditions

- Based on the as-built drawings and site visit, lay out the proposed third floor egress door location, landings, walkways, and stairs.
- Identify required railing and other features needed to complete the installation.
- Identify likely support points for the stair layout and how the total loading is distributed to the existing structure
- Prepare single page memo with sketches for each site
- Geotechnical Analysis and Recommendations Memo, if required

Task 2 - 65% Design Phase

For each location consultant shall:

- Attend bi-weekly project meetings and other meetings as necessary
- Prepare the following:
 - a. An Architectural Code review of Exits, Egress, Illumination, and Fire rating
 - b. An Architectural Code compliance/modification letter
 - c. Performance design of the stairs.
 - d. Seismic vulnerability Assessment of Existing Building (Manual Calculations)
 - e. Architectural Plans (Assumed 14 CAD drawings for each site)
 - f. Structural Plans (Assumed 12 CAD drawings for each site)
 - g. Preliminary structural calculations
 - h. Civil Plans (Assumed 2 CAD drawings for each site)
 - i. Specifications
 - j. Cost Estimate
 - k. Schedule
 - l. Internal QA/QC review

Task 3 - 100% Design Phase

For each location consultant shall:

- Attend bi-weekly project meetings and other meetings as necessary
- Incorporate comments from BART's 65% review
- Prepare the following:
 - a. An Architectural Code review of Exits, Egress, Illumination, and Fire rating
 - b. An Architectural Code compliance/modification letter
 - c. Performance design of the stairs.
 - d. Architectural Plans (Assumed 14 CAD drawings for each site)
 - e. Structural Plans (Assumed 12 CAD drawings for each site)
 - f. Preliminary structural calculations
 - g. Civil Plans (Assumed 2 CAD drawings for each site)
 - h. Specifications
 - i. Cost Estimate
 - j. Schedule
 - k. Internal QA/QC review

Task 4 – Issued for Bid/Permit/Construction (IFC) Phase

For each location consultant shall:

- Attend bi-weekly project meetings and other meetings as necessary
- Incorporate comments from BART's 100% review
- Prepare the following:
 - a. An Architectural Code review of Exits, Egress, Illumination, and Fire rating
 - b. An Architectural Code compliance/modification letter
 - c. Performance design of the stairs.
 - d. Architectural Plans (Assumed 14 CAD drawings for each site)
 - e. Structural Plans (Assumed 12 CAD drawings for each site)
 - f. Preliminary structural calculations
 - g. Civil Plans (Assumed 2 CAD drawings for each site)
 - h. Specifications
 - i. Cost Estimate
 - j. Schedule
 - k. Internal QA/QC review

Task 5 –Design Services During Construction (DSDC)

For each location consultant shall:

- Attend bi-weekly project meetings and other meetings as necessary
- Review shop drawings (4 included)
- Respond to RFI's (4 included)
- Prepare Record Drawings
- Site visits (2 included by either Architect or Engineer)

Assumptions:

- BART staff will provide preferred location for egress point within the tower
- Seismic or Code retrofit of the existing building is not included.
- Structural evaluation of the existing building for Code compliance is not included.
- All deliverables are in electronic PDF format.
- Only the IFC Drawings, and Calculations bear the stamp and signature of the Architect/Engineer of Record.
- Installation will be performed by BART personnel.
- Record drawings shall be prepared from redline markups provided by BART.
- Existing geotechnical reports are available and sufficient to support required analysis. No additional subsurface investigations are required.
- Illumination and other electrical features design shall be provided by BART.

Prime: HDR

Subconsultant: None

Total Work Plan Value: \$ 293,445