

Work Plan B.69-01 Steel Bridge Fracture Critical Member Inspection

Scope:

Safety and Security

The safety and security of all individuals associated with the inspection team is an important concern of AECOM. The Project Manager will have overall responsibility for ensuring that the bridge inspection work conforms to the safety requirements stipulated in the proposed Safety Plan, BART's policies and procedures, state of California and federal requirements. To this end, our inspection team leader will function as the on-site safety coordinator and will develop a Project Specific Safety Plan. This safety plan will specifically address the applicable safety concerns for the field inspections of the bridges. The bridge inspection team leader is a Certified Bridge Safety Inspector, having successfully completed an initial basic course and subsequent refresher training courses that emphasizes safety. He will direct the daily "toolbox" safety meetings, held to review proper procedures and to discuss any new safety issues.

The safety plan will include safety requirements such as 100% fall protection and confined space entry for the bridge inspections. All bridge inspection personnel have attended OSHA fall protection training and have been properly trained and certified on the equipment they will use. In addition, all inspection personnel involved with confined space entry for non-permit required confined spaces will be trained prior to any fieldwork.

Security will be addressed through signage on the inspection vehicles and each on-site team member will carry a photo ID badge. Additionally, we will routinely coordinate all inspection activities with the client and notify them of any schedule changes.

All AECOM staff and sub-contractors working within the BART right-of-way will receive BART safety training.

AECOM's Project Specific Safety Plan will also address all work involving tracks and passenger stations and will be available for BART's review and approval.

AECOM will coordinate all work with local municipalities prior to initiating fieldwork. AECOM will be responsible for procuring any necessary permits, developing traffic control plans and coordination of work with sub-contractors and BART. AECOM will review the traffic control plans that were developed for bridges that required traffic control plans for permit issuance (24 bridges) in 2022.

exist, such as (but not limited to) low oxygen levels, elevated toxic gas levels, excessive animal fecal matter, etc. AECOM will stop work immediately and notify BART. AECOM will work with BART to determine the best course of action for each individual bridge.

AECOM plans to inspect the bridges in a two-week period each month between Nov 2025 and April 2026. Spreading out the inspections serves two purposes: it allows inspectors to write reports for the bridges they inspected and submit to BART within 6 weeks, and it provides time to obtain permits from local municipalities. Bridge inspections will be scheduled and grouped by location and by availability of permits.

The following bridges have unique access or inspection requirements:

C-08: I-680 Overpass Bridge - The bridge inspection will be performed through a combination of ladder, bucket truck and man-lift. Span 1 and portion of Span 2 will be inspected from ground level using a ladder. Spans 2 through 6 will be inspected from a man-lift during nighttime lane closures on I-680. A bucket truck will be used for Span 7 over Trinity Avenue. AECOM will utilize the steel grating walkway in the center bay to inspect the interior faces of the interior girders and to gain access to the inside of the steel box pier caps.

L-02 and L-03: West Dublin Station Pedestrian Bridges – The portion of the pedestrian bridges spanning I-580 at the West Dublin Station are not considered fracture critical as per the structural plans. Therefore, no “hands-on” inspection of the truss spans over I-580 will be performed and no lane closures will be utilized on I-580. However, the approach spans to the pedestrian trusses spanning I-580 at the West Dublin Station are fracture critical and span over BART property. Inspection will be limited to the approaches only, and no lane closures will be utilized for the “hands-on” inspection of the approach spans. AECOM will inspect each fracture critical steel approach span for both bridges utilizing a bucket truck for access.

C-16: Pittsburg / Bay Point Station Pedestrian Bridge – The pedestrian bridge at the Pittsburg / Bay Point Station is a two span structure comprised of two steel girders with floor beams in each span. The steel girders are considered fracture critical, however, only the bottom surface of the bottom flanges and portions of the web above the concrete flooring within the bridge enclosure are exposed. The floor beam connections to the main girders are covered by prefinished metal soffit panels. AECOM will perform a hands-on inspection of the exposed bottom flanges and webs. No soffit panels will be removed during the inspection. The hands-on inspection of the bottom flanges will require nighttime lane closures on CA 4 East. The inspectors also will perform a visual, walk-through inspection within the bridge enclosure to inspect the visible portions of structural members. No architectural elements will be removed from the walls or roof.

C02: 55th Street Bridge and C-10: Walnut Creek Bridge – During the 2022 inspection, both bridges contain varying amounts of trash from people taking residence in them. AECOM assumes the BART personnel will clean the area around and the interiors of both bridges prior to the inspection.

C-14: Rockridge Station, C-15: Lafayette Station and R-4: MacArthur Station – The inspections at these locations will only include the structural members that support the tracks such as steel beams/girders, cross girders, and columns. Inspection of platforms, canopies, building frames and other members not supporting the tracks will not be part of the scope of work for this project. At Lafayette and MacArthur Stations portions of the supporting structure are not visible due to architectural elements. At the Rockridge Station AECOM will remove select ceiling tiles to view steel track members.

Quality Assurance

At the core of our technical expertise is our corporate commitment to provide our clients with a quality product based upon a corporate devotion to excellence. AECOM is an ISO 9001 company. Our commitment to excellence is formalized in a written ISO 9001 compliant Quality Assurance Program dedicated to providing superior work. This program has been developed to assure that all work is carried out in a planned, controlled, and correct manner. It includes procedures for scheduling and assigning work, for documenting correspondence, for resolving budget problems early to remedy the situation prior to completion and for high quality deliverables. Our Project Quality Representative (PQR) on the project will perform independent quality assurance reviews of all submittals prior to delivery. He will verify that the AECOM high quality standards are implemented and that project requirements are met or exceeded.

Project Assumptions

To confirm the approach to this project and provide the client a better understanding of AECOM proposed activities, the following basic project assumptions are provided:

1. The client will be responsible for the temporary relocation of any security barriers and/or providing access through any security gates or fences located at bridge sites.
2. No track or top of deck inspections will be performed. All inspections will include only fracture critical steel superstructure members, supporting substructure units and underside of deck.
3. No structural analysis, load ratings or load carrying capacity calculations are included as part of this work and cost proposal.
4. The cost to remove any excessive debris, animal feces, etc. to safely inspect interior box members is not included in cost proposal.
5. The attached cost estimate assumes that all bridge inspections will be performed during daylight hours during BART revenue hours. If inspections are to be performed during non-revenue hours, the cost estimate will need to be revised.

3. Deliverables

Upon completion of the field inspections, AECOM will prepare a Condition Report for each bridge detailing the findings of the field inspections and investigations. The Condition Report format will generally correspond to the typical format that we have utilized with other clients on past projects and will include the following:

1. Description of the bridge and an overall summary of the condition of the structure with color photos and sketches of the typical conditions.
2. A summary list of required immediate repairs, if necessary. As AECOM is not performing structural calculations for the bridge structure, a detailed cost estimate cannot be provided.
3. A summary of the visual inspection findings for fracture critical members and fatigue sensitive details. A summary statement will accompany the list and highlight areas of concern and recommend corrective action needed, close monitoring or special material testing.
4. A copy of the field inspection notes with detailed descriptions will be submitted in a separate file.

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Prime: AECOM

Subconsultant	Amount	DBE (Y/N)	SBE (Y/N)
Statewide	\$ 186,695	N	N

Total Work Plan Value: \$ 1,027,364