

BART Agreement Number: 6M8214

Approval Date: 08/28/25

Work Plan A.03-01 Engineering Support During Construction

Scope:

· **TASK 1.0 PROJECT MANAGEMENT AND REVIEW EXISTING INFORMATION**

Activities included in this task:

- Review Tunnel Water Mitigation Engineering Assessment Report
- Review subway box condition assessment for S1 and S2 lines from MP 24.24 to 25.18
- Review remedial work plan and procedures and revise
- Onboarding for all necessary tasks, files, access to as-builts
- Schedule and coordinate meetings (6 max) and field visits
- Coordination with BART Maintenance crew
- Conduct QA/QC review of work products and deliverables

Deliverables

- Revised remedial work plan and procedures
- Schedule and conduct kick-off meeting and monthly progress meetings
- Update project schedule and progress
- Meeting minutes

· **TASK 2.0 PREPARE AND OBTAIN ACCESS FOR WSP PERSONNEL**

Activities included in this task:

- Prepare and submit SSWP to BART.
- Revise SSWP for BART comments (one revision) and resubmit
- Prepare travel authorization approval
- Request badging for WSP personnel
- Submit Systems Access request
- Attend 40-hour Roadway Worker Protection Safety Training

Deliverables

- SSWP – draft and final

TASK 3.0 OBSERVE AND DOCUMENT LEAK REPAIRS

Activities included in this task:

- Observe and document grouting leak repairs including:
 - (1) Work schedule
 - (2) Material and equipment used
 - (3) Grouting product
 - (4) Drill hole details
 - (5) Locations and descriptions of cracks
 - (6) Photos of pertinent aspects of work
 - (7) Observations during injection process
- Evaluate cracks within one tunnel diameter (~16-ft) on either side of crack/joint
- Recommend additional locations for leak repairs, grouting materials and procedure, as needed
- Periodic site visits by SME
- Prepare Nightly Water Leak Remediation Coordination Sheet
- Prepare Weekly Grouting Inspection Report
- Prepare Monthly Work Plan Progress Reports

ASSUMPTIONS/EXCEPTIONS

- Work during non-revenue hours on Friday/Saturday and Saturday/Sunday shifts. For work occurring on different shifts; ample notice to be provided in order to schedule staff
- Crew will gain access no earlier than 1:30AM and exit no later than 4:30AM.
- No extended blanket hours.
- No work on November 22 and 23 shifts.
- Working time is between 90 to 120 minutes per shift.
- BART maintenance crew of 3 persons is available for leak repairs for each shift.
- Concrete crack repair estimates assume 12" hole spacing.
- Crack repair grouting is assumed to progress at 1-2 cracks per shift.
- Productivity rates for crack injections are based on current BART W-Line crack injection work.
- A nine-month duration as identified in the Request for Task Order Scope of Work provided by BART.
- The 9-month duration may not be long enough to repair all of the leaks at the crack repair rates assumed.
- Schedule for BART reviews and issuance of badges, SSWP and system access have been estimated and may take longer.
- Condition assessment scans to be provided prior to entering tunnel

Prime: WSP

Subconsultants: None

Total Work Plan Value: \$ 245,920