

**BART Agreement Number: 6M8133**

**Approval Date: 11/03/2020**

**Work Plan: No. B.8-02 – Traction Power Projects**

**Scope:**

**2. SCOPE OF SERVICES**

The Consultant is to provide part-time technical support for approximately 16 hours per week. This is a 12-month Work Plan totaling 832 hours. The Traction Power Projects tasking and scope include, and are not limited to:

**2.1 Traction Power Disconnect Switch Procurement Project(s) – (20%)**

- a) Provide support in design coordination and procurement of 6KA traction power disconnect switches for installation at track and interlocking replacement projects.
- b) Provide field verification support for installation.
- c) Provide support for installation locations ensuring the contact rail system and train performance is not reduced.
- d) Submission of IOP and approval tracking for any change in interim operations as a result of disconnect switch installation.
- e) Review of ETTS system effects as a result of disconnect switch installation.

**Associated projects: Systemwide, not project specific.**

**2.2 Duct Bank Technical Memorandum Project(s) – (10%)**

- a) Provide support and coordination for the submission of the duct bank technical memorandum.
- b) Support implementation of technical memorandum detail at track interlocking projects.
- c) Support efforts to integrate technical memorandum into Bart Facilities Standards (BFS).

**Associated projects: Systemwide, not project specific.**

**2.3 Traction Power (Red) Book 36 Updates – (5%)**

- a) Provide support to Traction Power Engineering for Book 36 markups, BECO's and RFE's.

- b) Ensure all changes in feeding arrangements and contact rail configurations are recorded and updated for changes made during track replacement projects.

Associated projects: Associated with changes from all RR interlocking projects C55, C35, C25, A65, A77, Richmond Yard, A85, K-Line, R65, HMC2 and systemwide as required.

#### 2.4 Dip Rail Implementation & Procurement Project (20%)

- a) Provide procurement and design coordination support on new Conductix dip rail implementation to the BART System.
- b) Support dip rail field surveys for track replacement projects.
- c) Coordinate testing and seek approvals from relevant engineering departments.
- d) Perform field surveys to provide QA/QC testing support.
- e) Support RFV, Systemwide Approval and Dip Rail Update.

Associated projects: Systemwide, not project specific.

#### 2.5 BFS Drawing and Manufacturer Shop Drawing Updates (4%)

- a) Provide support on Electrical IOPs for GAP Breaker Station Upgrades.
- b) Provide support for temporary changes in feeding arrangements, contact rail configurations and notifications to TPE, TPM and Operations for all relevant changes.

Associated projects: Systemwide, not project specific.

#### 2.6 Track Interlocking Projects (1%)

- a) Provide support on Electrical IOPs for GAP Breaker Station Upgrades.
- b) Provide support for temporary changes in feeding arrangements, contact rail configurations and notifications to TPE, TPM and Operations for all relevant changes.
- c) Provide negative return path analysis during construction phasing for track interlocking replacement projects.
- d) Provide safe clearance planning, knife switch installation and temporary jumper installation to support construction phasing for track interlocking projects.
- e) Support interlocking commissioning, punch list items and certificate of conformance for traction power system.

Associated projects: All RR interlocking projects C55, C35, C25, A65, A77, A85, Richmond Yard, K-Line, R65, HMC2 and systemwide as required.

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#### 2.11 Other Related Tasks as Assigned by TP Engineering Division Manager – (5%)

**Prime:** Ghirardelli Associates

**Subconsultant:** None

**Total Work Plan Value:** \$ 177,933