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 (RFS).

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, A59, 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 RPV, Systemwide Approval and Dip Rail Update.

Associated projects: Systemwide, not project specific.

2.5 B/F Electrical 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, A59, Richmond Yard, K-Line, R65, HMC2 and systemwide as required.
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, A10, 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 BES Drawing and Manufacturer Shop Drawing Updates (4%)  
   a) Provide support for Electrical IODPs for GAP Breaser 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 for Electrical IODPs for GAP Breaser 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.


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

Prime: Ghirardelli Associates

Subconsultant: None

Total Work Plan Value: $ 177,933