Communication Based Overlay Signal System

Project Status

Board of Directors
July 7, 2016
Agenda Item # 18

Background

- Issue Communications Based Overlay Signal System Design/Procure/Install Turn-key RFP: August 2010
- Awarded Prime Contact: October 2011
- Executed a Service Agreement with California High Speed Rail Authority (HSR11-04) for Federal Railroad Administration Funding: December 2011
- Issued Notice to Proceed to Parson Transportation Group: Jan. 27, 2012
- Executed Fiber Optic Option: April 26, 2012
- Exercised Option 1 (Phase 2): April 30, 2013
- Exercised Option 2 (Phase 3): Aug. 1, 2013
- Exercised Option 2 (Phase 4): Dec. 4, 2014
CBOSS Project Requirement

Positive Train Control (Rail Safety Act 2008)
- Prevent Train-to-Train Collisions
- Prevent Overspeed Derailments
- Prevent Incursions into Established Work Zones
- Prevent Movement through a Misaligned Switch

Additional Requirements
- Enhanced Crossing Safety / Performance
- Improved Headways and Operational Flexibility
- Enforcement of Scheduled Station Stops
- Schedule Management
- Employee in Charge

CBOSS PTC Project Status
- On-Board Equipment Installation Complete
- Wayside Interface Unit Installation and FRA Official Validation Testing Complete
- Fiber Optic Cable Installation Complete
- Base Station Installation Complete
- Brake Testing is in Progress
- High Rail Testing for FRA Official Critical Assets Complete
CBOSS PTC Project Status

- BCCF Build-out Complete; CBOSS PTC Testing being Conducted from BCCF Facility
- Successful Revenue Service Operations Test of the BCCF
- There appear to be interoperability challenges
  - Version issues
  - FRA requirements

Project Schedule and Budget

- New Project Baseline Schedule Developed
- First phase of Revenue Service Demonstration scheduled for October 2016.
  - This timeframe is at risk
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Project Related Activities

- JPB PTG Partnering Session held on May 25\textsuperscript{th} and 26\textsuperscript{th}.
- APTA Peer Review of CBOSS Project in Progress (June 1\textsuperscript{st} – 3\textsuperscript{rd}).
- Long Term Maintenance and Support:
  - Evaluating two alternatives for providing required CBOSS long term maintenance and support services
  - Both alternatives are contracted solutions

Project Key Milestones

<table>
<thead>
<tr>
<th>Project Key Milestones</th>
<th>Planned Baseline Finish</th>
<th>Actual/Forecast Finish</th>
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<tbody>
<tr>
<td>1. JPB Issued Notice to Proceed to PTG – Phase 1</td>
<td>Jan 2012</td>
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<td>2. Completion of Preliminary Design Review and Acceptance</td>
<td>Sept 2012</td>
<td>Nov 2012</td>
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<td>7. Completion of Field Subsystem Installation and Verification</td>
<td>Jan 2015</td>
<td>Mar 2015</td>
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<td>13. Final System Acceptance</td>
<td>May 2016</td>
<td>April 2017</td>
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Next Steps

• Complete Segment #3 Pilot Testing and FRA Witness Testing
• Complete All Wayside and Communications Subsystem Testing
• Cut-over and Begin Using New Mileposts
• Submit RSD Application
• Complete Segment #2 and Segment #1 Testing and submit results to FRA.

Transitions

• Changing PMO Staff
• PTG designing system to achieve revised functionality required by FRA for RSD
• Baseline schedule and schedule for RSD will be revised based on design solution and acceptance by FRA
Questions?

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