Communication Based Overlay Signal System
Project Status

Board of Directors
February 4, 2016
Agenda Item 10

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
- Dynamic Testing On Test Train Continues
- High Rail Testing for FRA Official Critical Assets Continues
- BCCF Build-out Complete; CBOSS PTC Testing being Conducted from BCCF Facility
Project Schedule and Budget

- New Project Baseline Schedule Developed
- Revenue Service Demonstration delayed until Q4 2016.
  - I-ITCS Software Release Delays
  - Contractor Execution of Test Plans and Schedules
  - FRA process is in flux
- Schedule delay will require additional funding for the project.
  - Requires commercial negotiation with Contractor
  - Funding for extension of Owners Team
- Will Submit Budget Request in the FY 2017 Budget Process

Project Key Milestones

<table>
<thead>
<tr>
<th>Project Key Milestones</th>
<th>Planned Basline 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>Q2 2017</td>
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Next Steps

- Develop and Submit Revised Project Budget in FY17 Budget Process
- Complete Segment #3 Pilot Testing and FRA Witness Testing
- Submit RSD Application
- Complete Segment #2 and Segment #1 Testing
- Commence Revenue Service Q4

Questions?

CaltrainPTC@samtrans.com