Peninsula Corridor Electrification Project (PCEP)

Q1 Quarterly Update #12
July 1 - September 30, 2017

JPB Board Meeting
November 2, 2017
Agenda Item # 8a

Electrification - Infrastructure

- Construction activities in Segment 2:
  - Began tree trimming and removals

- Progression of field activities:
  - Continued utility potholing and completed signal potholing
  - Prepared sidings and staging areas for start of foundation installation
  - Installed test piles
  - Performed stray current surveys
  - Relocated existing signal cables
Electrification - Infrastructure

• Progression of design:
  – Overhead Catenary System (OCS):
    • Complete design for Segment 2 Work Area 5
    • Continued design for other Segments 2 and 4
  – Signal System:
    • Continued submission and review of 65% signal design for Segments 2 and 4
    • Continued technical coordination with Union Pacific Railroad for system wide signal system design
  – Traction Power System:
    • Continued submission and review of 95% Traction Power Facilities design for Segment 4
    • Continued with Pacific Gas and Electric (PG&E) interconnection feasibility study for Segments 2 and 4
  – Communication System:
    • Continued work on 65% system wide communication system design

Test pile installation in preparation for foundation installations
OCS Foundations

- Potholing
- Drilling
- Installing

Electrification - Infrastructure

- Supervisory Control and Data Acquisition (SCADA) Contract (ARINC Inc.)
  - Completed contract negotiations
  - Awarded contract at August Board meeting
  - Executed in September
  - Notice to Proceed and kickoff meeting in October
Electrification - Infrastructure

• Tunnel Modifications
  – 100% Plans and Specifications reviewed
  – Completion of bid package targeted for December

• Centralized Equipment Maintenance and Operations Facility (CEMOF)
  – Developed design concepts
  – Reviewed with stakeholders

Electrification - Infrastructure

• PG&E
  – Supplemental Agreement #3 approved for final design and long lead procurement
  – Progress on power quality studies with PG&E
  – Start interconnection option study and coordination
  – Temporary power available from PG&E by summer 2018
**Electrification - Infrastructure**

- **Utility Relocation and Coordination**
  - Relocation required at locations of overhead power and communication lines
  - Relocation notices sent to owners of utilities
  - Conducted utility partnering session
  - Received relocation schedules from PG&E and Silicon Valley Power
  - Received first PG&E relocation designs

**Electrification - Infrastructure**

- **Disadvantaged Business Enterprise (DBE) Participation and Labor**
  - Design-Build contract has a DBE goal of 5.2%
    - $1,795,031 (0.258%) paid to date
  - Upcoming solicitations for DBE/Small Business Enterprise to be determined:
    - Tunnel modifications
    - CEMOF facility upgrades for Electric Multiple Units (EMUs)
    - On-call safety & security support for PCEP
EMUs

• Stadler
  – Input for on board bike storage received with stacked option selected
  – Completed preliminary design review meetings for car shell, ventilations and mechanical systems
  – Receiving extrusions for car body manufacturing

Mockup of engineer’s console and seat within the cab
EMUs

Carbody - Aluminium Section of End Underframe

Carbody - Aluminium Section of Roof End Structure

Safety

- Safety and Security Certification Review Committee - monthly basis with participation from FRA, FTA and Project Management Oversight Committee
- Fire Life Safety & Security Committee - monthly basis with representatives from local fire, police and County Office of Emergency Services personnel
- Certifiable Element and Items List developed
- Two incidents in the quarter
  - No injuries or schedule impacts
  - Mitigation efforts undertaken to prevent repeats
Quality Assurance

- Revised PCEP Quality Management Plan
- RFP preparation underway for QA lab
- 7 audits conducted this quarter (35 to date) including:
  - Wayside power cabinets
  - Switch machines
  - Bridge segments
  - Concrete batching
  - Traction power facilities/systems
  - Control point signaling
- No findings

Schedule

Note: Schedule Subject to Change
Budget & Expenditures (in millions)

<table>
<thead>
<tr>
<th></th>
<th>Budget</th>
<th>Current Budget*</th>
<th>Q1 Costs</th>
<th>Costs to Date</th>
<th>Estimate at Completion</th>
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<tbody>
<tr>
<td>Electrification</td>
<td>$696.6</td>
<td>$696.7</td>
<td>$24.8</td>
<td>$157.2</td>
<td>$696.7</td>
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<td>SCADA</td>
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<td>$3.4</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$3.4</td>
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<td>EMU</td>
<td>$550.9</td>
<td>$550.9</td>
<td>$29.7</td>
<td>$43.6</td>
<td>$550.9</td>
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<td>Separate Contract &amp; Support Costs</td>
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<td>$417.2</td>
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<td>$417.2</td>
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<td>Contingency</td>
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<td>$312.0**</td>
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<td>$298.9</td>
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<td>Forecasted Costs &amp; Changes</td>
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<td>$0.0</td>
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<td>$13.1</td>
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<td>PCEP Total</td>
<td>$1,980.3</td>
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<td>$70.4</td>
<td>$324.1</td>
<td>$1,980.3</td>
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* Includes executed change orders and awarded contracts
** Refer to Contingency Drawdown Table on next slide for details

Contingency Drawdown Table

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<th>Contracts</th>
<th>Drawdown Amount</th>
<th>Contingency</th>
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<tbody>
<tr>
<td>BBII Executed Change Orders</td>
<td>$ 85,472</td>
<td>$ 315,533,611</td>
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<tr>
<td>SCADA Contract</td>
<td>$ 3,446,917</td>
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<tr>
<td>Total</td>
<td>$ 3,532,389</td>
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<td>Remaining Contingency</td>
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<td>$ 312,001,222</td>
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Note: Budget / Expenditures as of September 30, 2017

Note: As of September 30, 2017
Risk Management

- September Risk Refresh Meeting
  - Comprehensive review of full risk register
- Top Risk: Contractor may be unable to develop grade crossing modifications that meet operational requirements prior to scheduled sub-system testing of the grade crossings
- 276 risks; 106 active; 170 retired

Environmental Compliance

- Pre-construction efforts:
  - Nesting bird surveys
  - Biological surveys
  - Installation of wildlife exclusion fencing
- Archaeological exploratory trenching
- Construction noise and light mitigation
Real Estate

<table>
<thead>
<tr>
<th>Segment</th>
<th>Appraisal Packages Needed</th>
<th>Appraisals Completed</th>
<th>Acquisition Offers Presented</th>
<th>Acquisition Offers Accepted</th>
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<tr>
<td>Segment 1</td>
<td>8</td>
<td>0</td>
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<td>Segment 2</td>
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<td>Segment 4</td>
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<tr>
<td>Total</td>
<td>55</td>
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<td>39</td>
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The real estate acquisition program has prioritized delivering property first the first two construction segments, 2 and 4. With those acquisitions finalized, the focus is now turning to segments 1 and 3, which are scheduled to commence later in the project schedule.

Note: As of September 30, 2017

Groundbreakings

Salt Lake City Vehicle Plant Groundbreaking
October 13, 2017
Gov. Gary Herbert and Sen. Orrin Hatch helped celebrate the groundbreaking of a new vehicle plant that will help build Caltrain’s EMUs

PCEP Groundbreaking
July 21, 2017
EMU Outreach

- Input received
  - Seat colors (gray and red)
  - Onboard bike storage (stacking, storage, demarcation)
  - ADA restroom input from Caltrain
    Accessibility Advisory Committee (labeling, grab bars, emergency button)

- Website
  - www.calmodtrains.com

- Total Sessions: 7,817
  - Mobile (42.8%)
  - Desktop (52.4%)
  - Tablet (4.8%)
- Users
  - New (76.7%)
  - Returning (23.3%)

Construction Outreach

- Pre-construction community mtgs
- Notices (38,000+)
- Weekly e-mail updates
  www.caltrain.com/pcepconstruction
- Construction outreach office
- Dedicated 24-hour project hotline
  650-508-7726
- Dedicated interactive website (upcoming)