PENINSULA CORRIDOR ELECTRIFICATION PROJECT (PCEP)

Q4 Quarterly Update #15
April 1 – June 30, 2018

JPB Board Meeting
August 2, 2018
Agenda Item # 7c
Progression of Design

- Overhead Catenary System (OCS):
  - Continued design for all Segments
  - Continued technical coordination with Union Pacific Railroad for Segment 4 OCS Design Changes

- Signal System:
  - Continued submission and review of 65% signal design for Segments 2 and 4
  - Continued technical coordination with Union Pacific Railroad for systemwide signal system design
  - Continued developing Consistent Warning Time (CWT) Solution Approaches
  - Continued review of Segment 2 and 4 Line of Sight Studies
ELECTRIFICATION

Progression of Design

• Traction Power System:
  – Completed Traction Power Systemwide Design
  – Continued design of Traction Power Facilities Plans in all Segments
  – Completed design of Traction Power Substation 2 in Segment 4
  – Coordinated design of Traction Power Substation 1, including interface with South San Francisco Station Improvement Project
  – Continued coordination with PG&E on design of interconnection

• Communication System:
  – Continued work on systemwide communication design

• Systems Integration:
  – Continued design of Systems Integration Testing Plan
# ELECTRIFICATION

## Issued for Construction Designs Completed

<table>
<thead>
<tr>
<th>Design Discipline</th>
<th>OCS</th>
<th>Signal</th>
<th>Traction Power</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required</td>
<td>Completed</td>
<td>Required</td>
</tr>
<tr>
<td>Segment 1</td>
<td>6</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Segment 2</td>
<td>11</td>
<td>9</td>
<td>66</td>
</tr>
<tr>
<td>Segment 3</td>
<td>4</td>
<td>1</td>
<td>10</td>
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<tr>
<td>Segment 4</td>
<td>9</td>
<td>5</td>
<td>24</td>
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<tr>
<td>Systemwide</td>
<td>9</td>
<td>7</td>
<td>14</td>
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</tbody>
</table>

Systemwide: 9 Required, 7 Completed
CONSTRUCTION
## Construction Progress

<table>
<thead>
<tr>
<th>Segment</th>
<th>Work Area</th>
<th>Foundations</th>
<th>Poles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Required¹</td>
<td>Completed</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>256</td>
<td>172</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>366</td>
<td>194</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>190</td>
<td>37</td>
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<tr>
<td></td>
<td>2</td>
<td>260</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>206</td>
<td>0</td>
</tr>
</tbody>
</table>

Note:

¹ Foundations Required do not match Poles Required as guy foundations are needed in some locations for extra support.
TPS-2 Site Work / Civil Work
Bracket Setting
Cantilever Installation
ELECTRIFICATION

Dangle Drill for Long Reach Foundations
Other Electrification Contracts

- **Supervisory Control and Data Acquisition (SCADA)**
  - Preliminary Design Review completed
  - Final Design Reviews underway
- **Centralized Equipment Maintenance and Operations Facility (CEMOF)**
  - Design Complete
  - IFB release: July 26, 2018
  - Pre-Bid: August 8, 2018
  - Bids Due: September 17, 2018
  - NTP: November 1, 2018
Tunnel Modifications

- Completed successful negotiations with the single bidder for the Tunnel Modifications Contract, Proven Management, Inc. (PMI) which resulted in a decrease in the total bid price from $41,837,777 to $38,477,777.
- Work in the tunnels will be performed during weekend outages between Bayshore Station and 4th and King Station, from October 2018 to March 2019.
- PMI is scheduled to start preliminary work in the tunnels during non-revenue service periods in the weekends in September.
Other Electrification Contracts (continued)

• Pacific Gas and Electric (PG&E)
  – Continued design of Permanent Power at FMC and East Grand
  – Continued construction for FMC Temp Power. Erected steel and received major material
  – Continued Material procurement for Permanent Power

FMC Substation - San Jose

Cable Pulling

New 115kV Breaker on Pad
DBE

Goal of 5.2% ($36,223,749) of the DB contract

- As of June 30, 2018
  - $9,543,158 has been paid to DBE subcontractors

$36.22M
DBE Goal

$23.52M
DBE Contracts Awarded as of 06/30/18

$9.54M
DBE Achieved as of 06/30/18

As of June 30, 2018 – $9,543,158 has been paid to DBE subcontractors
ELECTRIC MULTIPLE UNITS (EMU)
Stadler

• Most Final Design Reviews for major systems conducted and being finalized for Caltrain approval
• Carshell Construction and Painting First Article Inspections completed successfully
• 3\textsuperscript{rd} Cab Car Shell shipped to independent test facility in Germany for 10 weeks of structural test setup, measurements, and load testing
• 2 Cab Car Shells shipped from Altenrhein to Salt Lake City June 5\textsuperscript{th} to begin scheduled 8-week journey
• Manufacturing and Final Assembly Facility construction continues on schedule in Salt Lake City. ‘Displacement Hall’ is to be available for first car shell delivery in August 2018
First Painted Shell – A-Cab Car
First two Car Shells Loaded in Basel for Trip to Salt Lake City
EMU

Stadler New Rail Car Manufacturing Facility in Salt Lake City
Note: Schedule Subject to Change
RISK MANAGEMENT
• Review Cost and Schedule Impacts of Risk Register
• 285 risks; 94 active; 191 retired
• Top Risk: BBII may be unable to develop grade crossing modifications that meet regulatory requirements prior to scheduled testing and commissioning of the consistent warning system
BUDGET & EXPENDITURES
## BUDGET & EXPENDITURES

*Note: Budget / Expenditures as of June 30, 2018*

<table>
<thead>
<tr>
<th></th>
<th>Budget</th>
<th>Current Budget</th>
<th>FY18 Q3 Costs</th>
<th>Costs to Date</th>
<th>Estimate at Completion</th>
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<tbody>
<tr>
<td>Electrification</td>
<td>$696.61</td>
<td>$708.60</td>
<td>$21.18</td>
<td>$224.59</td>
<td>$708.60</td>
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<tr>
<td>SCADA</td>
<td>$0.00</td>
<td>$3.45</td>
<td>$0.00</td>
<td>$1.38</td>
<td>$3.45</td>
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<td>EMU</td>
<td>$550.90</td>
<td>$550.56</td>
<td>$27.03</td>
<td>$88.17</td>
<td>$550.56</td>
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<td>PG&amp;E</td>
<td>$57.22</td>
<td>$88.49</td>
<td>$4.17</td>
<td>$22.33</td>
<td>$88.49</td>
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<td>Separate Contract &amp; Support Costs</td>
<td>$359.99</td>
<td>$358.21</td>
<td>$11.62</td>
<td>$152.97</td>
<td>$358.21</td>
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<td>Anticipated Changes</td>
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<td>PCEP Total</td>
<td>$1,980.25</td>
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<td>$64.01</td>
<td>$489.44</td>
<td>$1,980.25</td>
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$489,440,245 as of 06/30/18

$591,295,321 Current Available Funds

Baseline Budget  Program Actuals  Future Expenditures  Current Available Funds
## Contingency Drawdown

<table>
<thead>
<tr>
<th>Contracts</th>
<th>Amount</th>
<th>Contingency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Contingency</td>
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<td>$315,533,611</td>
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<tr>
<td><strong>Drawdown</strong></td>
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<tr>
<td>Executed Change Orders</td>
<td>$9,883,185</td>
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<tr>
<td>SCADA Contract</td>
<td>$3,446,917</td>
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<tr>
<td>PG&amp;E Supplemental #4</td>
<td>$31,263,082</td>
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<tr>
<td><strong>Total</strong></td>
<td>$44,593,184</td>
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<tr>
<td>Remaining Contingency</td>
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<td>$270,940,427</td>
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Note: As of June 30, 2018
## ANTICIPATED CONTINGENCY DRAWDOWN

<table>
<thead>
<tr>
<th>Contracts</th>
<th>Amount</th>
<th>Contingency</th>
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</thead>
<tbody>
<tr>
<td>Remaining Contingency</td>
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<td>$270,940,427</td>
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<tr>
<td>Pending Contingency Drawdown</td>
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<tr>
<td>Change Orders In Process</td>
<td>$2,556,696</td>
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<td>Tunnel Notching (Awarded in July)</td>
<td>$14,786,286</td>
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<tr>
<td>Total</td>
<td>$17,342,982</td>
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<tr>
<td>Anticipated Remaining Contingency</td>
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<td>$253,597,445</td>
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Note: As of June 30, 2018
Change Management Board (CMB) Approved Changes

• Balfour Beatty (BBI) Contract
  – Installation of Insulated Joints and Tie Spacing (April)
  – PG&E Interconnection to TPS#1 and TPS#2 – Design (May)
  – Pole Re-design along UPRR-owned Main Track 1 (Santa Clara to San Jose) (June)

• Other Approvals
  – FFGA delay costs (BBI, Stadler, and Program Oversight Costs (April)
  – Construction Management On-Call Services Contract (April)
  – Tunnel Modifications Contract (May)
  – CEMOF Modifications Contract (June)
COMMUNITY OUTREACH
Meetings, Mailers & Website

- 5 Public Meetings
- 17,186 Direct Mailers
- CalMod.org Website
  - +78.95% users (7,396 vs. 4,133)
  - +92.51% sessions (10,894 vs. 5,659)
  - +85.33% page views (27,991 vs. 15,103)
  - 84.2% new visitors this quarter, 15.8% returning visitors
CalMod E-Newsletter

APRIL
44.3% OPEN
197 TOTAL CLICK THROUGHS

MAY
46.6% OPEN
135 TOTAL CLICK THROUGHS

JUNE
37.9% OPEN
90 TOTAL CLICK THROUGHS

Sign up at www.CalMod.org/get-involved