Quarterly Capital Program Status Report
and DBE Status Report

Prepared for the March 2, 2017 Caltrain Board Meeting

2nd Quarter FY2017: October 1, 2016 – December 31, 2016

Peninsula Corridor
Joint Powers Board
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### Caltrain - Capital Program - Budget Status Summary

#### 2nd Quarter FY2017 - October 01, 2016 to December 31, 2016

All Costs in $1,000's

<table>
<thead>
<tr>
<th>Programs</th>
<th>FY2012</th>
<th>FY2013</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Station and Intermodal Access</td>
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<td>$3,483</td>
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<td>4. Operational Improvements/Enhancements</td>
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<td>$4,423</td>
<td>$2,271</td>
<td>$2,844</td>
<td>$4,723</td>
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<tr>
<td>5. Others</td>
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<td>$1,990</td>
<td>$2,690</td>
<td>$1,740</td>
<td>$4,220</td>
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<tr>
<td>6. Caltrain Modification Program</td>
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<td>$122,529</td>
<td>$315,873</td>
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<td>7. Legal Mandates &amp; Required Enhancements</td>
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<td>$0</td>
<td>$117,982</td>
<td>$1,595</td>
<td>$3,337</td>
<td>$14,721</td>
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<td><strong>Total Board Approved Budget by FY</strong></td>
<td>$61,477</td>
<td>$39,093</td>
<td>$190,565</td>
<td>$44,555</td>
<td>$217,036</td>
<td>$525,986</td>
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</table>

| **Total Audited Expenditures by FY**          | $81,375| $87,385| $111,349| $115,225| $131,330| (3)     |

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### Some of the major projects completed or in progress include, but are not limited to the following:

- 25th Avenue Grade Separation Project
- Caltrain Right of Way Fencing Project
- Jerrold Avenue Bridge Replacement Project
- Los Gatos Bridge Replacement Project
- Narrow Banding Project
- Quint Street Bridge Project
- Rail Operation Control System (ROCS) Project
- Railroad Communications System Project
- Real Time Transit Information Project - Predictive Arrival/Departure System (PADS)
- San Bruno Grade Separation Project
- San Francisco Bridge Replacement Project
- San Mateo Bridges Rehabilitation Project
- Signal Pre-emption Improvement Project
- South San Francisco Station Improvements Project
- South Terminal and Santa Clara Stations Improvements Project
- Systemwide Signal Rehabilitation Project
- Systemwide Station Rehabilitation Project
- Systemwide Track Rehabilitation Project
- Wayside Power at Diridon Station Project

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**Note:**

1. The "Total Board Approved Budget by FY" reflects the annual fiscal year capital budget approved by the Caltrain Board. This authorizes the amount that can be spent on projects. Unspent budget in a fiscal year may be carried forward to subsequent budget years.
2. "Total Audited Expenditures by FY" reflects the total cost expended in the fiscal year; funding source for the expenditures could be from prior fiscal years.
3. Expenditures shown for FY2017 have not yet been audited.
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## TRAFFIC LIGHT REPORT

The following projects represent a sub-set of the total Capital Program and have been selected for inclusion into the Quarterly Report due to project value, operational significance, and/or impact on customers.

<table>
<thead>
<tr>
<th>SCOPE</th>
<th>SCHEDULE</th>
<th>BUDGET / COST</th>
<th>HSR IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atherton Station Improvements Project (Project On hold)</td>
<td>W W</td>
<td>R R</td>
<td>4</td>
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<tr>
<td>Broadway Station Improvements Project (Project On hold)</td>
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<td>R R</td>
<td>6</td>
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<tr>
<td>Crew Facility Rehab at San Francisco Terminal Project</td>
<td>G G</td>
<td>R R</td>
<td>8</td>
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<tr>
<td>CBOS/PTC Project</td>
<td>G G</td>
<td>R R</td>
<td>10</td>
</tr>
<tr>
<td>Grade Crossing Improvements in Redwood City Project</td>
<td>G G</td>
<td>R R</td>
<td>12</td>
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<tr>
<td>Inward Facing Cameras on Trains Project</td>
<td>G G</td>
<td>R R</td>
<td>14</td>
</tr>
<tr>
<td>Los Gatos Creek Bridge Replacement Project</td>
<td>G G</td>
<td>R R</td>
<td>16</td>
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<tr>
<td>Marin Street and Napoleon Avenue Bridge Closure Project</td>
<td>G G</td>
<td>R R</td>
<td>18</td>
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<tr>
<td>New Control Point at Brittan Project</td>
<td>G G</td>
<td>R R</td>
<td>20</td>
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<tr>
<td>Quint Street Bridge Project</td>
<td>G G</td>
<td>R R</td>
<td>22</td>
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<tr>
<td>Railroad Communications System (SOGR) Project - FY2013</td>
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<td>R R</td>
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<tr>
<td>Railroad Communications System (SOGR) Project - FY2014</td>
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<td>R R</td>
<td>26</td>
</tr>
<tr>
<td>Rail Grinding Project - FY2014 &amp; FY2015</td>
<td>G G</td>
<td>R R</td>
<td>28</td>
</tr>
<tr>
<td>San Francisco Roadway Bridges Replacement Project</td>
<td>G G</td>
<td>R R</td>
<td>30</td>
</tr>
<tr>
<td>San Mateo Bridges Replacement Project</td>
<td>G G</td>
<td>R R</td>
<td>32</td>
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<tr>
<td>South San Francisco Station Improvement Project</td>
<td>G G</td>
<td>R R</td>
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<td>South Terminal Phase II Project</td>
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<td>36</td>
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<td>Systemwide Signal System Rehab Project - FY2013</td>
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<td>R R</td>
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<tr>
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<td>Systemwide Signal System Rehab Project - FY2015</td>
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<td>Systemwide Track Rehab Project - FY2016</td>
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<tr>
<td>Train Departure Monitor at Terminal Stations Project</td>
<td>G G</td>
<td>R R</td>
<td>48</td>
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<tr>
<td>Train Dispatch Voice Communication System Project</td>
<td>G G</td>
<td>R R</td>
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<tr>
<td>25th Ave. Grade Separation Project</td>
<td>G G</td>
<td>R R</td>
<td>52</td>
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</tbody>
</table>

- **W** = Project On-Hold
- **G** = No Issues
- **R** = Significant Issues
- **Y** = Notable Issues
ATHERTON STATION IMPROVEMENTS PROJECT

SCOPE: This project provides for the design and construction of new station facilities at Atherton Station (MP 27.80) to eliminate the "hold out rule". The scope of the project includes demolishing the center platform and providing outboard boarding platforms with a center inter-track fence and a signalized/gated pedestrian crossing at the northern end of the platforms.

Issues: Design has been completed; project was placed on hold for further efforts (see note in "Other" section). Scope of project is on hold; Caltrain capital program management team is reviewing the impacts of other improvements in the vicinity of the station to determine the appropriate scope definition for the Atherton Station project.

A Hold-Out Rule Elimination study which includes reviewing and advancing design options is being conducted for the Atherton Station, Broadway Station and South San Francisco Station.

SCHEDULE:

<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Description</th>
<th>Orig Dur</th>
<th>% Complete</th>
<th>Early Start</th>
<th>Early Finish</th>
<th>2002</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
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<tr>
<td>01572</td>
<td>Atherton Interim Outboard Platform</td>
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<td>100</td>
<td>18JUN30A</td>
<td>18DEC30A</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>*Preliminary Engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>*Engineering Design</td>
<td>90%</td>
<td></td>
<td>18JUN30A</td>
<td>18DEC30A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Progress: Project is on hold.

Oct - Dec 2016

Future Activities: Project is on hold.

Jan - Mar 2017

Issues: Project is on hold; schedule needs to be redefined and re-baselined.
**BUDGET:**

<table>
<thead>
<tr>
<th></th>
<th>(a)</th>
<th>(b)</th>
<th>(c)</th>
<th>(d)</th>
<th>(e) = (a - d)</th>
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<td>$529,173</td>
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<td>($2,285,800)</td>
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</tbody>
</table>

**Issues:**

The project was put on hold for any further design efforts. Estimate at Completion will be re-evaluated when project is re-activated.

**HSR IMPACT:**

Project scope, budget and delivery schedule could be impacted by High Speed Rail development along the Caltrain corridor.

**OTHERS:**

Project has been placed on hold; Capital Program Management team is currently reviewing the impact of capital improvements (incl. Dumbarton Rail Extension) in the vicinity of Atherton Station.
BROADWAY STATION IMPROVEMENTS PROJECT

SCOPE:
This project is to eliminate the "hold out rule", reduce gate down time and provide pedestrian/patron safety by providing outboard boarding platforms at the Broadway Station (MP 15.2). The platforms are to be staggered, the Northbound platform north of Broadway Avenue and the Southbound platforms remaining south of Broadway Avenue. Scope includes track work, signal work, pedestrian active warning devices, lighting and general construction work on platforms and associated amenities. This work shall eliminate the hold out rule and reduce gate downtime. Most of the track rehab work in the vicinity of the Broadway station has been transferred to the Burlingame Outboard Platform Project.

Issues:
The project was put on hold for any further design efforts. Scope of project is on hold; Caltrain capital program management team is reviewing the impacts of other improvements in the vicinity of the station to determine the appropriate scope definition for the Broadway Station project.

A Hold-Out Rule Elimination study which includes reviewing and advancing design options is being conducted for the Broadway Station, Atherton Station and South San Francisco Station.

SCHEDULE:

<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Description</th>
<th>Orig Dur</th>
<th>% Complete</th>
<th>Early Start</th>
<th>Early Finish</th>
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<td>13.JUL.04A</td>
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Progress:
Project is on hold.

Oct - Dec 2016

Future Activities:
Project is on hold.

Jan - Mar 2017

Issues:
Project is on hold; schedule needs to be redefined and re-baselined.
### BUDGET:

<table>
<thead>
<tr>
<th></th>
<th>(a) Current Board Approved Budget</th>
<th>(b) Expended to Date</th>
<th>(c) Committed To Date</th>
<th>(d) Estimate at Completion</th>
<th>(e) Variance at Completion</th>
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</thead>
<tbody>
<tr>
<td>Total Project</td>
<td>$2,789,341</td>
<td>$1,410,282</td>
<td>$1,417,334</td>
<td>$7,497,100</td>
<td>($4,707,759)</td>
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</table>

### Issues:

The project was put on hold for any further design efforts. Estimate at Completion will be re-evaluated when project is re-activated.

### HSR IMPACT:

None, based on the "Blended System" approach.

### OTHER:

Project has been placed on hold; Capital Program Management team is currently reviewing the impact of future capital improvements in the vicinity of the Broadway station.
CREW FACILITY REHAB AT SAN FRANCISCO TERMINAL PROJECT

SCOPE:

The scope of this project is to repair and upgrade the San Francisco crew facility which is located at Fifth and Townsend in San Francisco and consists of:

1. Re-configuration of the existing rooms and non-functional spaces to meet the current operational needs.
2. Addition of a corridor in the facility to improve circulation.
3. Rehabilitation of the locker rooms, restrooms, shower areas, sleeping quarters, kitchen, lobby and lounge areas.

ISSUES:

None.

SCHEDULE:

<table>
<thead>
<tr>
<th>Activity ID</th>
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<th>Start</th>
<th>Finish</th>
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<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
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<th>Q4</th>
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<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
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<td>02111</td>
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<td>30-Nov-16 A</td>
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<td>31-Dec-15 A</td>
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<td>Construction</td>
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<td>30-Sep-16 A</td>
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<td></td>
<td>Project Close Out</td>
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<td>30-Nov-16 A</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

PROGRESS:

Oct - Dec 2016

1. Completed as built drawings.
2. Processed final progress payment.
3. Completed project close out.

FUTURE

ACTIVITIES:

Jan - Mar 2017

This will be the last quarterly report for the project.

ISSUES:

None.
CREW FACILITY REHAB AT SAN FRANCISCO TERMINAL PROJECT

BUDGET:

<table>
<thead>
<tr>
<th></th>
<th>Current Board Approved Budget</th>
<th>Expended To Date</th>
<th>Committed To Date</th>
<th>Estimate at Completion</th>
<th>Variance at Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Total</td>
<td>$1,075,000</td>
<td>$1,041,272</td>
<td>$1,041,272</td>
<td>$1,075,000</td>
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</tr>
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</table>

Issues: None.
SCOPE:

This project includes design of a Communications Based Overlay Signal System Positive Train Control (CBOSS PTC), which will improve rail safety, provide enhanced operational benefits for passenger rail service, and fulfill federally mandated positive train control safety improvements along the Caltrain California High Speed Train (CAHST) San Francisco to San Jose corridor. The CBOSS PTC communication system has been specified to provide a reliable means for PTC information exchange at speeds up to 125 mph between the CBOSS PTC-equipped trains, wayside equipment and Centralized Control Facility (CCF).

The CBOSS PTC Project will be implemented in three phases:

Phase 1 - Project Administrative Planning, Preliminary Design and Critical Design of CBOSS PTC system.

Phase 2 with fiber optic backbone - Activities including acceptance of CBOSS PTC Final Design and the Factory Acceptance Test, as well as installation of the data communications subsystem including fiber optic backbone.

Phase 3/4 with fiber optic backbone - Activities including all remaining CBOSS PTC subsystem installation, all sub-system and system testing, training, safety certification, completion of the BCCF, commissioning and system acceptance, and one year warranty.

Focus of the project during phase 1 was as follows:

1) Project administrative planning;
2) Federal Railroad Administration (FRA) documentation deliverables such as the PTC Development Plan (PTCDP), PTC Implementation Plan (PTCIP) updates and the PTC Safety Plan (PTCSP) outline;
3) PTC database management plan;

Focus of the project during phase 2 is as follows:

1) CBOSS PTC Final Design for all sub-system hardware and software.
2) Completion of Factory Integrated Subsystem/system Demonstration.
3) Complete Installation and Verification of Data Communication System (including Fiber).

Focus of the project during phase 3 / 4 is as follows:

1) Complete remaining CBOSS PTC subsystem installation including the BCCF.
2) Complete remaining sub-system testing, verification, training and commissioning.
3) Commence Revenue Service Demonstration.
4) Complete safety certification, system acceptance, and one year warranty.

Issues: None

SCHEDULE:

Focus of the project during phase 2 is as follows:

1) CBOSS PTC Final Design for all sub-system hardware and software.
2) Completion of Factory Integrated Subsystem/system Demonstration.
3) Complete Installation and Verification of Data Communication System (including Fiber).

Focus of the project during phase 3 / 4 is as follows:

1) Complete remaining CBOSS PTC subsystem installation including the BCCF.
2) Complete remaining sub-system testing, verification, training and commissioning.
3) Commence Revenue Service Demonstration.
4) Complete safety certification, system acceptance, and one year warranty.

Issues: Project is in the process of re-baseline effort and it will complete by the 3rd quarter of FY17.
CBOSS PTC Project

Progress:
This Period: Oct - Dec 2016

1) Continued Book 3 and 4 testing with the test train.
2) Ran revenue service operations and PTC testing out of the CCF.
3) Continued interoperability planning.
4) Continued to work with PTC220 and TTCI to finalize Spectrum Slot Planning.
5) Planned production testing of Federated Link to freight railroad production network (BNSF)
6) Began second set of passenger car brake testing.
7) Vehicle Upgrade Program over 75% complete.

Future Activities: Jan - Mar 2017

1) Review and plan to submit draft RSD application.
2) Review safety case information to be provided in support of PTC Safety Plan.
3) Continue interoperability planning and perform interoperability preparatory validation testing.
4) Continue to work with PTC220 and TTCI and implement final slot plan.
5) Complete punch list items on all base station related activities.
6) Continue receipt and review of project as-built drawings.
7) Monitor implementation of onboard translator version of software.
8) Continue connection of Federated Link to freight railroad production network.

Issues: Onboard software development delays continue and will delay the October 2016 RSD date.

BUDGET:

<table>
<thead>
<tr>
<th>Phase 1, 2, &amp; 3 / 4 Cost Analysis</th>
<th>Original Budget</th>
<th>Current Board Approved Budget</th>
<th>Expended to Date</th>
<th>Committed to Date</th>
<th>Estimate at Completion</th>
<th>Variance at Completion</th>
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<tr>
<td>Owner's Cost</td>
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<td>Options/ Allowance</td>
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<td>$209,610,562</td>
<td>$247,847,807</td>
<td>($2,538,019)</td>
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</tbody>
</table>

Issues: Additional Budget of $14.3M for FY17 Capital Budget Call for Project approval was approved at the June 2016 Board meeting. The project is in the process of evaluating rebaseline schedule as well as commercial discussion with the prime contractor PTG. The Total Installed Cost (TIC) will be updated once subject effort is concluded in the future month.

HSR IMPACT: None
Grade Crossing Improvements in Redwood City Project

Scope:
This project will make improvements to three grade crossings (Whipple Ave, Main St. and Broadway) in Redwood City according to the scope defined in the CPUC Section 130 program. The grade crossing improvements will cover railroad, traffic, and roadway safety systems. The design components at each grade crossing include but are not limited to the following:

- Replacing vehicle gate arms
- Channelized pedestrian crossing with fencing & rails
- Improve sidewalk markings
- Improve pavement markings (striping, stop bars, etc.)
- Install standalone pedestrian gates
- Upgrade traffic signal interconnect

Issues:
None.

Schedule:

<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Description</th>
<th>Start</th>
<th>Finish</th>
</tr>
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<tbody>
<tr>
<td>100656</td>
<td>Grade Crossing Improvements in Redwo...</td>
<td>01-Feb-16 A</td>
<td>30-Jun-16 A</td>
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<td>100656-1</td>
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<td>01-Feb-16 A</td>
<td>31-Oct-16 A</td>
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<td>100656-2</td>
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<td>100656-3</td>
<td>Construction</td>
<td>01-Jun-17</td>
<td>26-Feb-18</td>
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<td>100656-4</td>
<td>Project Close Out</td>
<td>01-Mar-18</td>
<td>30-Jun-18</td>
</tr>
</tbody>
</table>

Progress:
Oct - Dec 2016
(1) Submitted the Issue for Bid (IFB) package to Contracts & Procurement.

Future Activities:
Jan - Mar 2017
(1) Contracts & Procurement to prepare the IFB package for advertisement.

Issues:
None.
### Grade Crossing Improvements in Redwood City Project

**BUDGET:**

<table>
<thead>
<tr>
<th></th>
<th>(a) Current Board Approved Budget</th>
<th>(b) Expended + Accrual to Date</th>
<th>(c) Committed to Date</th>
<th>(d) Estimated at Completion</th>
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</table>

**Issues:** None.
SCOPE: This project will install one inward facing camera and one interior microphone on Caltrain locomotives and cab cars to capture in-cab action during critical incidents based on recent NTSB recommendations. The cameras and microphones will be compatible with the existing system installed in 2013.

In 2013, Caltrain installed outward facing cameras and exterior microphones in its locomotives and cab cars to provide the agency with a tool for post incident investigation. The existing system includes a digital video recorder (DVR) and 500 GB hard drive which can store up to 28 days of video footage.

Issues: None.

SCHEDULE:

| Activity ID | Activity Description             | Start       | Finish      | Project | Year |
|-------------|---------------------------------|-------------|-------------|---------|------|-----------|
| 92149       | Inward Facing Cameras on Train   | 01-Nov-15 A | 30-Nov-17   | G       |      |           |
|             | Engineering Design              | 01-Nov-15 A | 30-Apr-16 A | G       |      |           |
|             | Bid and Award                   | 16-Jun-16 A | 31-May-17   | R       |      |           |
|             | Construction                    | 01-Jun-17   | 31-Oct-17   | G       |      |           |
|             | Project Close Out               | 01-Apr-17   | 30-Nov-17   | G       |      |           |

Progress: Oct - Dec 2016 (1) Continued bid and award process.

Future Activities: Jan - Mar 2017 (1) Continue bid and award process. (2) Advertise construction contract.

Issues: (1) Project has been delayed due to resource issues. (2) Schedule will be re-baselined at the award of construction contract.
### Inward Facing Cameras on Trains Project

#### BUDGET:

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<tr>
<th>Project</th>
<th>(a)</th>
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#### Issues:

None.
LOS GATOS CREEK BRIDGE REPLACEMENT PROJECT

SCOPE:
Scope of the Los Gatos Creek Bridge Replacement Project includes:
Preliminary Design, Environmental Document, Final Design and Construction for removal and replacement of the existing MT-1 and MT-2 bridges crossing the Los Gatos Creek. As recommended in the PSR, the new replacement structure is to be a pre-stressed / pre-cast concrete bridge with new foundations and a new widened bridge deck that allows construction for a permanent tail track and signal work. The permanent tail track and signal work is being covered under the South Terminal Phase 3 project. Environmental Clearance is obtained through the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) process.

ISSUES:
None.

SCHEDULE:

<table>
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<tr>
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<td>01812</td>
<td>Los Gatos Creek Bridge Replacement</td>
<td>05-Jan-16</td>
<td>01-May-16</td>
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- Conceptual Study: 03-Jan-16 to 26-Jan-16
- Environmental: 10-Sep-16 to 13-Jul-16
- Engineering Design: 04-Jun-17 to 15-Apr-16
- Procurement/Bid & Awards: 18-Apr-17 to 18-Oct-17
- Construction: 18-Oct-17 to 28-Dec-17
- Project Closure: 02-Jan-18 to 01-May-18

Progress:
Oct-Dec 2016
1. Completed real estate acquisition process.
2. Continued C&M agreement negotiations with the City of San Jose.
3. Continued negotiations with the UPRR.
4. Continued utility relocation process.
5. Issued LNTP to contractor.

Future Activities:
Jan-Mar 2017
1. Continue C&M agreement negotiations with the City of San Jose.
2. Continue negotiations with the UPRR.
3. Continue utility relocation process.
4. Continue contractor's administrative period for submittals.
5. Continue with construction activities.

ISSUES:
None.
## LOS GATOS CREEK BRIDGE REPLACEMENT PROJECT

### BUDGET:

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<td>Variance at Completion</td>
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<td>$15,040,801</td>
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<td>($1,466,787)</td>
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### Issues:

1. Additional funding will be requested as a part of the future capital budgeting process.

### HSR IMPACT:

None.
**MARIN STREET AND NAPOLEON AVENUE BRIDGE CLOSURE PROJECT**

**SCOPE:**
Marin Street and Napoleon Avenue bridges are located at MP 2.35 and MP 2.45 respectively in the City and County of San Francisco.

1. Project Scope was revised due to the discovery of a city facility below the planned elevated berm that prohibits the original planned scope. The scope was revised so that instead of removing the existing bridges entirely, the revised work scope is to rehabilitate and replace the bridge components that are in need of repair, as well as remove several short spans that are no longer needed functionally.

2. Track Geometry will not be altered; tracks will be reconstructed to the current alignment and profile.

**Issues:**
None.

**SCHEDULE:**

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<td>Marin &amp; Napoleon Ave Bridge Closure</td>
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<td>Preliminary Engineering</td>
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<td>04-Jan-16 A</td>
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<td>01-May-17</td>
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<td></td>
<td>Construction</td>
<td>01-Nov-17</td>
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<tr>
<td></td>
<td>Project Close Out</td>
<td>01-Sep-18</td>
<td>30-Sep-18</td>
</tr>
</tbody>
</table>

**Progress:**

Oct - Dec 2016

1. Completed 95% design submittals.
2. Began 100% design submittals.

**Future Activities:**

Jan - Mar 2017

1. Continue 100% design.

**Issues:**

Project schedule has been extended due to insufficient funding to proceed to award of construction.
MARIN STREET AND NAPOLEON AVENUE BRIDGE CLOSURE PROJECT

**BUDGET:**

<table>
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<tr>
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<td>$689,215</td>
<td>$3,850,000</td>
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</table>

**Issues:**

1. Additional funding will be requested as a part of FY2018 budgeting process.
2. Project EAC has been increased by $850K this quarter due to additional construction management requirements and revised project estimate.

**HSR IMPACT:**

None.
NEW CONTROL POINT AT BRITTAN PROJECT

SCOPE:
This project will design, procure and construct one new Control Point (CP) adjacent to the Brittan Avenue Underpass (MP 23.90). This CP will include a universal #20 crossover, two new signal houses, and the associated track and signal improvements. The new CP will increase operational flexibility system wide.

The new CP will help reduce delays due to single tracking and allow the Caltrain capital program to maximize operating flexibility for construction and emergency activities while maintaining public timetable commitments, both peak and off-peak, weekdays and weekends.

Issues: None.

SCHEDULE:

<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Description</th>
<th>Start</th>
<th>Finish</th>
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<td>002144</td>
<td>New Control Point at Brittan</td>
<td>15-Apr-16 A</td>
<td>30-Sep-16</td>
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<td>Preliminary Engineering</td>
<td>15-Apr-16 A</td>
<td>01-Dec-16 A</td>
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<td>Final Design</td>
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<td>Bid and Award</td>
<td>01-Jun-17</td>
<td>30-Nov-17</td>
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<td>Procurement</td>
<td>02-May-16 A</td>
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<td>Construction</td>
<td>01-Dec-17</td>
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<tr>
<td></td>
<td>Project Close Out</td>
<td>01-Aug-18</td>
<td>30-Sep-18</td>
</tr>
</tbody>
</table>

Progress:
Oct - Dec 2016
(1) Completed 95% design/estimate.
(2) Continued 100% design.
(2) Continued procurement of universal #20 crossover and signal houses.

Future Activities:
Jan - Mar 2017
(1) Continue final design.
(2) Continue procurement of universal #20 crossover and signal houses.

Issues: (1) Project schedule was extended due to the added design scope and waiting for additional funding in the FY18 capital budget.
NEW CONTROL POINT AT BRITTAN PROJECT

<table>
<thead>
<tr>
<th></th>
<th>Current Board Approved Budget</th>
<th>Expended to Date</th>
<th>Committed to Date</th>
<th>Estimate at Completion</th>
<th>Variance at Completion</th>
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<td>$677,953</td>
<td>$7,715,000</td>
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</table>

Issues:  
(1) Additional funding will be requested as a part of the future capital budgeting process.

HSR IMPACT: None
QUINT STREET BRIDGE PROJECT

SCOPE:

(1) Close Quint Street crossing permanently to vehicular traffic. Remove the Quint Street Bridge, fill the bridge opening with an embankment and construct new tracks on the embankment.
(2) Perform other related work such as utility protection, trackwork and street utilities.

The Quint Street bridge replacement with tracks on embankment will enable completion of the project within the approved budget without compromising the JPB goals on seismic vulnerability, state of good repair and safety and will not preclude the potential construction of a station in the vicinity.

Issues:

The bridge over Quint Street is not perpendicular to the street, but has a significant "skew". The high skew and complex geometry, combined with the "age" of the structure, may render the bridge vulnerable during significant magnitude earthquakes.

Final design was based on Street Closure and Berm Construction as selected by the San Francisco County Transportation Commission & Board of Supervisors in July 2013.

Berm Construction consists of two retaining walls approximately 325 feet in length. The placement of cellular concrete fill, which is prior to the superstructure removal & reconstruction of the track, will be completed in a single cutover event.

SCHEDULE:

<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Description</th>
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<tbody>
<tr>
<td>91918</td>
<td>Close Quint Street Bridge Replacement</td>
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<td>02-Jul-16</td>
<td>13-Aug-16</td>
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<td>Phase Gate/Programmatic Reviews</td>
<td>14-May-16</td>
<td>11-Aug-16</td>
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<td>Environmental</td>
<td>20-Aug-16</td>
<td>31-Jan-16</td>
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<td>Street Closure (NO CLOSURE)</td>
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<td>Engineering Design</td>
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<td>Procurement/Bid &amp; Awards</td>
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<td>31-Dec-16</td>
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</table>

Progress:

Oct - Dec 2016
(1) Complete processing of final documents.
(2) Complete project close-out.

Future Activities:

Jan - Mar 2017
None. Project completed.

This will be the last Quarterly Report for this project.

Issues:

None.
## QUINT STREET BRIDGE PROJECT

### Issues:
Project EAC has been reduced by $1M this quarter as the project is completed.

### HSR IMPACT:
None.

### Budget:

<table>
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<tr>
<th>Project</th>
<th>Current Board Approved Budget</th>
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<th>Committed to Date</th>
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</table>

![Project Budget / Cost Status](chart.png)
The State of Good Repair (SOGR) project includes eight upgrades / replacement tasks of Caltrain's communication systems or subsystems.

The eight upgrades / replacement tasks are:

- Task 1. Assessment of Back Office Train Control Systems at Central Control Facility (CCF).
- Task 3. Assessment and Optimization of Caltrain's Telephone Lines used for Communication and Signal (C&S) functions.
- Task 4. Increase voice radio coverage around Sunnyvale / Mountain View area.
- Task 5. Remote reboot capability of channel 5 radio at Monument Peak.
- Task 6. Develop standardized drawings and configuration management for railroad communication system.
- Task 8. Design and install a monitoring system for the following:
  - Operation of the red obstruction light on top of the CCF antenna tower.

Issues:
None.

Progress:
Oct - Dec 2016
(1) Awarded construction contract.
(2) Continued resolving bonding and insurance issues with construction contractor.

Future Activities:
Jan - Mar 2017
(1) Issue Limited Notice to Proceed (LNTP) and Notice to Proceed (NTP) for construction.
(2) Begin review of submittals.
(3) Resolve bonding and insurance issues with construction contractor.

Issues:
(1) The construction contractor has not been able to meet insurance and bonding requirements resulting in schedule delay.
(2) Schedule will be re-baselined at the award of construction contract.
### Railroad Communication System (SOGR) Project - FY2013

#### BUDGET:

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#### Issues:

None.
SCOPE:
The State of Good Repair (SOGR) project consists of four tasks for maintenance of the PCJPB’s Communication (COM) Systems.

Task 1: Sunnyvale / Mountain View Radio Base
Install a new radio base station to improve voice radio coverage in the Mountain View and Sunnyvale area. (Design is to be completed as part of FY2013 COM SOGR Project).

Task 2: Brisbane Radio Base
Design improvements of voice radio coverage in the Brisbane area by developing radio coverage models for a new base station. This task also includes analyzing current conditions at nearby Sign Hill base station and identifying potential improvements.

Issues:
None.

SCHEDULE:

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</table>

Progress:
Oct - Dec 2016
(1) Awarded construction contract.
(2) Continued resolving bonding and insurance issues with construction contractor.

Future Activities:
Jan - Mar 2017
(1) Issue Limited Notice to Proceed (LNTP) and Notice to Proceed (NTP) for construction.
(2) Begin review of submittals.
(3) Resolve bonding and insurance issues with construction contractor.

Issues:
(1) The construction contractor has not been able to meet insurance and bonding requirements resulting in schedule delay.
(2) Schedule will be re-baselined at the award of construction contract.
BUDGET:

<table>
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<tr>
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<td>Variance at Completion</td>
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</table>

Total Project

Issues: None.
FY2014 & FY2015 RAIL GRINDING PROJECT

SCOPE:
This project will provide rail grinding services to both production and spot rail grinding as set forth in the rail grinding Work Plan, to be developed by the Contractor and approved by the JPB. The services will be provided on an annual basis and will include management of the rail grinding application, documentation and measurement of the completed grinding process, and program evaluation. The services include:

1. Identify a preferred rail grinding template or templates by evaluating JPB rolling stock and rail infrastructure.
2. Recommend design modifications for rail profile to improve the ride quality and steering characteristics, and to reduce noise levels.
3. Perform a computer analysis of the interaction characteristics between:
   a) the worn wheel profile and the existing rail profile, and
   b) the desired new rail profile and desired wheel profile.
4. Determine the status of rail profile in track and the rail grinding requirements to modify the rail to desired profile specifications.
5. Plan and program the application of production rail grinding so that any impact on the current JPB operations is minimized and the use of its infrastructure and resources are optimized.

Issues:
None.

SCHEDULE:

<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Description</th>
<th>Start Date</th>
<th>Finish Date</th>
</tr>
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<td>02011-R YF2014 &amp; YF2015 Rail Grinding</td>
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<tr>
<td>Project Close Out</td>
<td>01-Oct-17</td>
<td>31-Dec-17</td>
<td></td>
</tr>
</tbody>
</table>

Progress:
Oct - Dec 2016
(1) Completed negotiations with selected contractor.
(2) The rail grinding contract was awarded at the December 2016 Caltrain Board meeting.

Future Activities:
Jan - Mar 2017
(1) Issue Limited Notice to Proceed (LNTP) for the rail grinding contract.
(2) Begin receiving submittals.
(3) Begin rail grinding along right of way

Issues:
(1) Schedule was re-baselined this quarter reflecting the award of the rail grinding contract.
FY2014 & FY2015 RAIL GRINDING PROJECT

BUDGET:

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Issues: None.
**SCOPE:**
The San Francisco Roadway Bridges Replacement project upgrades the Caltrain owned vehicular bridges located at 22nd Street, 23rd Street and Paul Avenue and includes:

1. Remove and replace the existing two-span steel-through girder superstructures as the bridges have reached the end of their useful lives, allowing sufficient vertical clearance to accommodate future projects such as electrification.
2. Remove and reconstruct the existing utility lines attached to the bridges. Provide temporary supports until the bridges are reconstructed.

**Issues:**
None.

---

**SCHEDULE:**

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<td>31-Jul-17</td>
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**Progress:**
Oct - Dec 2016

1. Mobilized for Paul avenue site work: Fences and Sidewalks.
2. Installed joint seals at Paul avenue.
3. Completed striping at Paul avenue.
4. Opened Paul avenue to vehicular traffic.
5. Installed drilled shaft foundation at 22nd street.
6. Completed placing column concrete at 22nd street.
7. Completed forming Bent Cap at 22nd street.
8. Completed demolition of Abutments at 22nd street.
9. Formed, Placed, and Cured Abutment Backwalls at 22nd street.

**Future Activities:**
Jan - Mar 2017

1. Erect and place Girders across 22nd Street.
2. Place deck reinforcement at 22nd Street.
3. Form, Place, and Cure sidewalks at 22nd Street.

**Issues:**
The project schedule has been extended due to a complex utility relocation at 22nd Street.
### SAN FRANCISCO ROADWAY BRIDGES REPLACEMENT PROJECT

#### BUDGET:

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**Issues:** None.

**HSR IMPACT:** None.
SAN MATEO BRIDGES REPLACEMENT PROJECT

SCOPE:
The project will improve structural integrity and improve roadway clearances of four railroad bridges that are approximately 100-years old. The project consists of the following phases:

**Phase I:** Foundation Improvements to strengthen the existing foundations and construct new abutments for the future replacement of the bridge spans. Phase I was completed in 2011 (Project 1755).

**Phase II:** Utility relocation - relocate all utilities that have potential impact to the bridge construction. Phase II and Phase III will be performed at the same time.

**Phase III:** Bridge Replacement - remove and replace of the existing steel girder superstructure and timber deck spans for the four San Mateo bridges (Poplar Avenue, Santa Inez Avenue, Monte Diablo Avenue and Tilton Avenue); raising the track level and establishing 15’ track centers through the project limits; install associated utility work; and increase clearance between the railroad bridge and the street below.

Issues:
None.

SCHEDULE:

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Progress:
Oct - Dec 2016
(1) Completed punch list work.
(2) Began change order negotiations.
(3) Began project close out.

Future Activities:
Jan - Mar 2017
(1) Complete change order negotiations.
(2) Complete project close out.

Issues:
None.
SAN MATEO BRIDGES REPLACEMENT PROJECT

BUDGET:

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Issues: None.

HSR IMPACT: None.
SOUTH SAN FRANCISCO STATION IMPROVEMENT PROJECT

SCOPE:
This project consists of track work, signal work, a new 700 foot center board platform with new amenities, new shuttle drop-off, and connectivity to a new pedestrian underpass from the platform to Grand Avenue/Executive Drive.

This will replace the existing South San Francisco Station with a new center boarding platform connecting to a new pedestrian underpass. The project improves safety by eliminating the hold out rule; in addition, the project provides connectivity along Grand Avenue for the City of South San Francisco.

ISSUES:
The City of South San Francisco (CSSF) has requested design modifications to incorporate the downtown master plan as part of this station project. This has impacted the project schedule and may impact the project cost.

SCHEDULE:

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<td>Project Close Out</td>
<td>01-Aug-19</td>
<td>31-Oct-19</td>
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Progress:
Oct - Dec 2016
(1) Revised CSSF design modifications to address structural and water table issues.
(2) Continued coordination on the cooperative agreement with Caltrans.
(3) Continued discussions with the Positive Train Control (PTC) team.
(4) Incorporated CSSF design modifications into advertisement package.
(5) Continued incorporating field data into design package.
(6) Continued coordination with third party utilities that need to be relocated.
(7) RSE continued production of the IFB (Issue For Bid) package.
(8) Began to incorporate request from Rail Operations to change from the secant pile to a pre-cast box for the station underpass.
(9) Began to develop Memo of Understanding (MOU) related to additional costs associated with CSSF’s design.

Future Activities:
Jan - Mar 2017
(1) Continue coordination on the cooperative agreement with Caltrans.
(2) Continue incorporating field data into design package.
(3) Continue discussions with the PTC team.
(4) Continue discussions with CSSF.
(5) Continue coordination with third party utilities that need to be relocated.
(6) RSE to continue production of the IFB package.
(7) Continue to incorporate request from Rail Operations to change from the secant pile to a pre-cast box for the station underpass.
(8) Continue developing Memo of Understanding related to additional costs associated with CSSF’s design modifications and meet with stakeholders.

Issues:
(1) Schedule has been impacted due to design modifications from CSSF.
(2) Schedule will be re-baselined after scope issues are resolved with UPRR and CSSF.
### SOUTH SAN FRANCISCO STATION IMPROVEMENT PROJECT

#### BUDGET:

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<tr>
<th></th>
<th>Current Board Approved Budget</th>
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<th>Estimate at Completion</th>
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#### Issues:

1. Additional funding will be requested as a part of the future capital budgeting process.

#### HSR:

None.
SOUTH TERMINAL PHASE II PROJECT

SCOPE:
This project will include planning, design and construction of a 4th mainline track, new signal controls, and new crossovers and slip switches, between the south end of Centralized Equipment Maintenance and Operation Facility (CEMOF) and the north end of the South Terminal Diridon Station.

The purpose of this additional track is to increase corridor flexibility and capacity, increase reliability of service which will allow more frequent non-revenue operations between the South Terminal and CEMOF.

Issues:
Current scope is for Preliminary Engineering in support of obtaining environmental clearance.

SCHEDULE:

<table>
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<tr>
<th>Activity/ID</th>
<th>Activity Description</th>
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<td>Preliminary Engineering</td>
<td>02-Feb-15 A</td>
<td>31-Mar-17</td>
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</tbody>
</table>

Progress:
(1) Continued coordination with the project teams who are planning to do work at Diridon.
(2) State Historic Preservation Officer (SHPO) did not concur with the FTA’s Area of Potential Effect (APE) submittal, related to Section 106 and requested additional field investigation.

Future Activities:
Jan - Mar 2017
(1) Conduct field investigation to address SHPO concerns.
(2) Incorporate field investigation findings in a new technical report.
(3) Prepare final document for FTA’s submittal to SHPO.
(4) Complete preliminary engineering.

Issues:
Preliminary Engineering schedule was extended to reflect the additional time to acquire NEPA clearance based on new questions raised by the FTA.
## SOUTH TERMINAL PHASE II PROJECT

### BUDGET:

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### Issues:
None.

### HSR IMPACT:
None.
SYSTEMWIDE SIGNAL REHABILITATION PROJECT - FY2013

SCOPE:
This project provides for the maintenance oversight by Caltrain to ensure that the signal system is maintained in a State of Good Repair (SOGR) and complies with all required regulations.

Design and construction components are as follows:

Design:
1) Design to retrofit the signal bridge at South San Francisco with safety improvements.
2) Design to retrofit all railroad signal lights (including replacement of the current outdated unilense signal lights) with LEDs.
3) Design to rehab Control Point (CP) Stockton signal house, update equipment & replace low speed switch machines with high speed machines.

Construction:
1) Procure LED signal light retrofit kits.
2) Retrofit all incandescent railroad signal lights with LEDs. (By TASI).
3) Additional scope - separate pedestrian gates arms from vehicular gates to meet CPUC standards at five stations.

Issues:
None.

SCHEDULE:

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Progress:
Oct - Dec 2016
(1) Continued preparations for construction of pedestrian gates.
(2) Provided TASI authority to hire an interim signal manager.
(3) Began procurement of subcontractor services.

Future Activities:
Jan - Mar 2017
(1) Continue preparations for construction of pedestrian gates.
(2) TASI to hire an interim signal manager.
(3) Rebid of the subcontractor services.
(4) Work will resume.

Issues:
Schedule has slipped due to the lack of signal maintainers and a signal manager to lead construction activities. Currently the available signal maintainers and a signal manager are being used on the Electrification project. TASI is attempting to hire an interim signal manager.
SYSTEMWIDE SIGNAL REHABILITATION PROJECT - FY2013

<table>
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Issues: None.
This project provides for the maintenance oversight by Caltrain to ensure that the signal system is maintained in a State of Good Repair (SOGR) and complies with all required regulations for FY2014.

Design and construction components are as follows:

1. Procure and replace eight gate mechanisms at eight grade crossings.
2. Replace rectifiers at seven Control Points.
3. Retrofit gate savers at twelve of Caltrain’s busiest vehicular crossings.
4. Design and strengthen the signal cantilever at MP 0.52, in the San Francisco yard.

Due to issues implementing the Electronic Gate Management System (EGMS) Caltrain will be installing new retrofitted gate mechanisms at the eight grade crossings.

**SCHEDULE:**

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**Progress:**

Oct - Dec 2016

1. Electronic Gate Management System (EGMS) manufacturer supplied new retrofitted EGMS units for the gate mechanisms for eight crossings.
2. Completed installation of retrofitted EGMS units at four crossings.
3. Completed testing of installed EGMS units at two crossings.

**Future Activities:**

Jan - Mar 2017

1. Complete installation of retrofitted EGMS units at remaining crossings.
2. Complete testing of the installed retrofitted EGMS units at remaining crossings.

**Issues:**

1. The EGMS contained a defective component which was falsely dropping the pedestrian gates. This issue is currently being mitigated.
2. Additional time was added to the schedule this quarter to account for the installation and testing of the retrofitted EGMS units. The project schedule was re-baselined to reflect this.
### SYSTEMWIDE SIGNAL REHABILITATION PROJECT - FY2014

<table>
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#### Issues:
None.

![Project Budget / Cost Status](chart.png)
The fiscal year 2015 (FY15) Signal Rehab Project is a part of the ongoing program to keep Caltrain’s signal system at a State of Good Repair (SOGR).

The scope of this project is to locate the underground signal cables in the field and then survey and plot their locations using Global Position System (GPS) devices. This will include underground railroad signal cables from San Francisco - MP 0.2 to San Jose - MP 51.6. The signal cable locations will be incorporated into PCJPB’s master CADD file. These signal records will help mitigate signal cable conflicts during design and construction.

Scope for the maintenance support was added this month through an amendment to the RSE work directive. This maintenance support will provide the on-going updates to the final CADD drawings as changes are made to the right of way.
**SYSTEMWIDE SIGNAL REHABILITATION PROJECT - FY2015**

**BUDGET:**

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**Project Budget / Cost Status**

- **Current Board Approved Budget:** $1,000,000
- **Expended To Date:** $764,163
- **Committed To Date:** $764,163
- **Estimate At Completion:** $1,000,000

**Issues:** None.
SYSTEM WIDE TRACK REHABILITATION PROJECT - FY2015

SCOPE:

The System Wide Track Rehabilitation Program covers the work required to keep the Caltrain railroad in a state of good repair. The type and scope of work scheduled for each fiscal year is based upon the condition of the railroad as reflected in Caltrain’s State of Good Repair database. This database is updated regularly with input from track inspections and tests that are performed throughout the year. Each fiscal year, a new project is set up to cover the track work performed that year. The scope proposed for Fiscal Year 2015 system wide track rehabilitation includes the following:

1. Replace stock rails and points on an as-needed basis.
2. Production rail joint replacement at approximately 50 locations.
3. Remove old or bonded over insulated joints at about 50 locations, approximately 100 welds.
4. Replacement of standard ties and switch ties on main tracks and yards, approximately 1,500 ties.
5. Surfacing 30 miles of curve and tangent track, 25 turn outs at various locations.
6. Upgrade rail lubricators.
7. Purchase of small tools and equipment required for track maintenance activities.
8. Work in South San Francisco Yard, billable to UP.
9. Minor repairs to bridges, culverts and structures.
10. Leased equipment and facilities.
11. Purchased services – rail detector, geometry inspections, weed abatement.
12. Fence repairs and graffiti removal.

Issues:

This project has been closed and the new Project 100004 is now active for the Systemwide Track Rehabilitation work.

SCHEDULE:

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<th>Activity Description</th>
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<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td>01-Aug-16</td>
<td>31-Oct-16</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Project Close Out</td>
<td></td>
<td>01-Nov-16</td>
<td>31-Dec-16</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Progress:

This project has been closed. For status see the new Project 100004 - Systemwide Track Rehabilitation in this quarterly report.

Future Activities:

This will be the last quarterly report for the project.

Issues:

None.
## SYSTEMWIDE TRACK REHABILITATION PROJECT - FY2015

**BUDGET:**

<table>
<thead>
<tr>
<th>Project Total</th>
<th>Current Board Approved Budget</th>
<th>Expended to Date</th>
<th>Committed to Date</th>
<th>Estimate at Completion</th>
<th>Variance at Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$11,447,402</td>
<td>$9,329,186</td>
<td>$9,571,379</td>
<td>$9,587,414</td>
<td>$1,859,988</td>
</tr>
</tbody>
</table>

### Project Budget / Cost Status

![Project Budget/Cost Status Chart]

**Issues:** A new FY2016 SOGR Project 100004 has been opened and all costs and encumbrances are being collected against the new project.
SCOPE:

The System Wide Track Rehabilitation Program covers the work required to keep the Caltrain railroad in a state of good repair. The type and scope of work scheduled for each fiscal year is based upon the condition of the railroad as reflected in Caltrain’s State of Good Repair database. This database is updated regularly with input from track inspections and tests that are performed throughout the year. Each fiscal year, a new project is set up to cover the track work performed that year. The scope proposed for FY2015 system wide track rehabilitation includes the following:

1. Replace stock rails and points on an as-needed basis.
2. Production rail joint replacement at approximately 50 locations.
3. Remove old or bonded over insulated joints at about 50 locations, approximately 100 welds.
4. Replacement of standard ties and switch ties on main tracks and yards, approximately 1,500 ties.
5. Surfacing 30 miles of curve and tangent track, 25 turnouts at various locations.
6. Upgrade rail lubricators.
7. Purchase of small tools and equipment required for track maintenance activities.
8. Work in South San Francisco Yard, billable to UP.
9. Rebuild 3 grade crossings: Charleston, Meadow, Churchill
10. Minor repairs to bridges, culverts and structures.
11. Leased equipment and facilities.
12. Purchased services – rail detector, geometry inspections, weed abatement.
13. Fence repairs and graffiti removal.

ISSUES:

None.

SCHEDULE:

The System Wide Track Rehabilitation Project 02117 has been closed and all costs and encumbrances will now be collected against this new project.

Progress:

Oct - Dec 2016

(1) Surfaced 7.9 miles of main line track.
(2) Stabilized 7.9 miles of track.
(3) Regulated 7.9 miles of ballast.
(4) Surfaced five turnouts.
(5) Built up 17 frog inserts.
(6) Ground 18 switches.
(7) Performed 35 thermite welds.
(8) Placed 545 tons of ballast.
(9) Installed four insulated joints.
(10) Installed 120 pandrols.
(11) Changed out 631 feet of rail.
(12) Replaced 495 cross ties.
(13) Replaced nine switch ties.
(14) Performed 35 ultrasonic tests.
(15) Ran the geometry car.
(16) FRA visited the site.
(17) CPUC visited the site.
(18) Performed tree trimming.
(19) Performed hyrail inspection.
(20) Performed turnout inspection.
(21) Performed bridge inspection.

Future Activities:

Jan - Mar 2017

(1) Continue ongoing maintenance work.

Issues:

None.
BUDGET:

<table>
<thead>
<tr>
<th>Project Total</th>
<th>Current Board Approved Budget</th>
<th>Expended to Date</th>
<th>Committed to Date</th>
<th>Estimate at Completion</th>
<th>Variance at Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$7,490,000</td>
<td>$1,001,849</td>
<td>$1,519,849</td>
<td>$7,490,000</td>
<td>$0</td>
</tr>
</tbody>
</table>

Issues: None.
SCOPE: Installation of Train Departure Monitors will replace the existing wooden "dog bone" signs and station stop posters at the doors to the San Francisco platforms. For the San Jose Diridon station, the monitors will be installed at the station lobby and in the pedestrian underpass. The monitors will replace the track departure posters at the Diridon station.

Issues: None.

SCHEDULE:

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Design</td>
<td>03-Feb-16</td>
<td>30-Sep-16</td>
</tr>
<tr>
<td>Bid and Award</td>
<td>01-Oct-16</td>
<td>16-Jun-16</td>
</tr>
<tr>
<td>Construction</td>
<td>16-Jun-16</td>
<td>16-Jan-17</td>
</tr>
<tr>
<td>Project Close Out</td>
<td>16-Jan-17</td>
<td>16-Apr-17</td>
</tr>
</tbody>
</table>

Progress:

(1) Completed installing monitors at San Francisco 4th & King and San Jose Diridon stations.
(2) Completed pulling wires at San Francisco 4th & King and San Jose Diridon stations and terminated the fiber cables.
(3) Continued to work on software corrections.

Future Activities:

(1) Test all the newly installed monitors at San Francisco 4th & King and San Jose Diridon stations.
(2) Complete the software corrections and test the system.
(3) Begin project close out.

Issues: None.
Train Departure Monitor at Terminal Stations Project

BUDGET:

<table>
<thead>
<tr>
<th></th>
<th>(a)</th>
<th>(b)</th>
<th>(c)</th>
<th>(d)</th>
<th>(e) = (a - d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Board Approved Budget</td>
<td>$1,530,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expended + Accrual to Date</td>
<td></td>
<td>$1,213,469</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Committed to Date</td>
<td></td>
<td></td>
<td>$1,263,809</td>
<td></td>
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</tr>
<tr>
<td>Estimated at Completion</td>
<td></td>
<td></td>
<td></td>
<td>$1,530,000</td>
<td></td>
</tr>
<tr>
<td>Variance at Completion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$0</td>
</tr>
</tbody>
</table>

Total Project: $1,530,000

Issues: None.
**Train Dispatch Voice Communication System Project**

**SCOPE:** Train Dispatch Voice Communication System Project will replace the obsolete Digital Touch Exchange (DTX) system in the Central Control Facility (CCF) in San Jose and the DTX system in the San Francisco 4th & King station. The project consists of the following tasks: (1) Design and specify the requirements of a new DTX system; (2) Develop an Invitation for Bid (IFB) to procure and install the new system at CCF; (3) Test and validate the new system; (4) Train the dispatchers on the new system; (5) Cutover to the new system and perform an acceptance test; (6) Remove and dispose of the old DTX system.

This equipment is mission critical to effectively operate the railroad for communications between the dispatcher and the train and for post-incident investigations.

**Issues:** None.

**SCHEDULE:**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/2016 - Train Dispatch Voice Communication System Project</td>
<td>01-Oct-12 A</td>
<td>31-May-17</td>
</tr>
<tr>
<td>Milestone</td>
<td>08-Apr-12 A</td>
<td>09-Apr-12 A</td>
</tr>
<tr>
<td>Engineering Design</td>
<td>01-Oct-12 A</td>
<td>28-Feb-13 A</td>
</tr>
<tr>
<td>Procurement/Bid &amp; Awards</td>
<td>01-Mar-13 A</td>
<td>31-Dec-14 A</td>
</tr>
<tr>
<td>Construction</td>
<td>02-Jan-15 A</td>
<td>28-Feb-17</td>
</tr>
<tr>
<td>Project Closure</td>
<td>01-Mar-17</td>
<td>31-May-17</td>
</tr>
</tbody>
</table>

**Progress:**

Oct - Dec 2016  
(1) Contractor continued investigating the issues with the new DTX system at CCF.  
(2) Continue testing of the new DTX system at CCF.  
(3) Installed radio workstations at Central.

**Future Activities:**

Jan - Mar 2017  
(1) Continue to resolve the issues with the new DTX system at CCF.  
(2) Continue testing of the new DTX system at CCF.  
(3) Begin project closeout.

**Issues:** Project schedule was originally extended due to the negotiations with the stakeholders and vendor did not result in an agreement for maintaining the system and PCJPB rejected all proposals. A change order was then issued to PTG under the CBOSS contract to replace the DTX system at CCF. Because the CBOSS project was installing an identical system in the BCCF, Project was waiting for the opportunity to cutover to the new train voice dispatch system when the CCF is unoccupied during the CCF shutdown and trains are dispatched from the BCCF as part of the CBOSS project.
## TRAIN DISPATCH VOICE COMMUNICATION SYSTEM PROJECT

### Budget:

<table>
<thead>
<tr>
<th>Project Budget / Cost Status</th>
<th>Current Board Approved Budget</th>
<th>Expended to Date</th>
<th>Committed to Date</th>
<th>Estimate at Completion</th>
<th>Variance at Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Project</td>
<td>$2,428,000</td>
<td>$1,215,543</td>
<td>$1,491,698</td>
<td>$2,578,000</td>
<td>($150,000)</td>
</tr>
</tbody>
</table>

### Issues:

1. Additional funding will be requested in the future budgeting process.

### HSR Impact:

None
25th AVENUE GRADE SEPARATION PROJECT

SCOPE: This project will provide grade separation between Hillsdale Boulevard and SR-92, including:
• Grade separating the 25th Avenue on grade crossing.
• Construction of two new grade separated crossings at 28th and 31st Avenues.
• Perform Relocation of the Hillsdale station.

Issues: None.

SCHEDULE:

<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Activity Description</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>02208 - 2306</td>
<td>Ave Grade Separation</td>
<td>16-Jul-14 A</td>
<td>31-Jan-20</td>
</tr>
<tr>
<td></td>
<td>Preliminary Engineering</td>
<td>16-Jul-14 A</td>
<td>31-Oct-16 A</td>
</tr>
<tr>
<td></td>
<td>Environmental Clearance</td>
<td>26-Sep-14 A</td>
<td>29-Oct-16 A</td>
</tr>
<tr>
<td></td>
<td>Final Design</td>
<td>02-Nov-15 A</td>
<td>09-Dec-16 A</td>
</tr>
<tr>
<td></td>
<td>Bid and Award</td>
<td>15-Nov-16 A</td>
<td>30-Apr-17</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>01-May-17</td>
<td>31-Oct-19</td>
</tr>
<tr>
<td></td>
<td>Project Close Out</td>
<td>01-Nov-19</td>
<td>31-Jan-20</td>
</tr>
</tbody>
</table>

Progress:
Oct - Dec 2016
(1) Continued meeting with stakeholders.
(2) Continued appraisals for Right of way.
(3) Continued discussion with property owners.
(4) Completed 100% design.
(5) Completed IFB process.
(6) Reviewed 100% construction estimate.
(7) Began legal review.
(8) Continued bid and award period.

Future Activities:
Jan - Mar 2017
(1) Continue meeting with stakeholders.
(2) Continue appraisals for Right of way.
(3) Continue discussion with property owners.
(4) Continue bid and award period.
(5) Continue legal review.
(6) Conduct construction pre-bid meetings.

Issues: None.
25th AVENUE GRADE SEPARATION PROJECT

**BUDGET:**

<table>
<thead>
<tr>
<th></th>
<th>(a)</th>
<th>(b)</th>
<th>(c)</th>
<th>(d)</th>
<th>(e) = (a - d)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Board</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approved Budget</td>
<td>$179,800,000</td>
<td>$9,411,992</td>
<td>$9,411,992</td>
<td>$179,800,000</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Expended to Date</strong></td>
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<tr>
<td></td>
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</tr>
<tr>
<td><strong>Committed to Date</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Estimate at Completion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Variance at Completion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Issues: (1) Project budget increase of $165,300,000 was approved at the October 2016 Board. With this budget increase, the Current budget and Estimate at completion shown in the Cost Analysis has been revised accordingly.

HSR IMPACT: None.
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Caltrain

Disadvantaged Business Enterprise (DBE)
Quarterly Status Report

As of: Q1 Federal Fiscal Year (FFY) 2017
(From October 1, 2016 to December 31, 2016)

The following is a summary of Caltrain’s DBE Status:

<table>
<thead>
<tr>
<th>Status</th>
<th>Q1 FFY17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of Contracts Awarded</td>
<td>$5,126,941</td>
</tr>
<tr>
<td>Amount of Contracts Awarded to DBEs</td>
<td>$229,564</td>
</tr>
<tr>
<td>Overall Annual Goal in %</td>
<td>14.0%</td>
</tr>
<tr>
<td>% DBE Attainment</td>
<td>4.5%</td>
</tr>
<tr>
<td>% Over/(Under) Goal</td>
<td>-9.5%</td>
</tr>
</tbody>
</table>

*Contract-Specific DBE goals will be instituted on upcoming Capital Projects to increase DBE utilization.
Definition of Terms

**Committed to Date** - The committed to date amount includes all actual expenditure of agency labor, other direct costs, the awarded amount of a work directive, a contract, or a purchase order which have been committed in the PeopleSoft accounting system.

**Current Board Approved Budget** - The current board approved budget includes the original board approved budget plus approved change orders or internal budget transfers which have been approved by the board.

**Estimate at Completion** - The forecasted final cost of the project. The estimate at completion can be different from the Current Board Approved Funding, which indicates a variance at completion.

**Expended to Date** - The cumulative project costs that have been expended through the current reporting period as reported in PeopleSoft + the accrual cost of the work performed that has not been recorded in PeopleSoft.

**Variance at Completion** - The difference between the Current Board Approved Funding and the Estimate at Completion. A negative variance indicates that additional funding is needed.
Performance Status (Traffic Light) Criteria

<table>
<thead>
<tr>
<th>SECTIONS</th>
<th>On Target (GREEN)</th>
<th>Moderate Risk (YELLOW)</th>
<th>High Risk (RED)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SCOPE</td>
<td>(a) Scope is consistent with Budget or Funding.</td>
<td>(a) Scope is NOT consistent with Budget or Funding.</td>
<td>(a) Significant scope changes / significant deviations from the original plan.</td>
</tr>
<tr>
<td></td>
<td>(b) Scope is consistent with other projects.</td>
<td>(b) Scope appears to be in conflict with another project.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(c) Scope change has been mitigated.</td>
<td>(c) Scope changes have been proposed.</td>
<td></td>
</tr>
<tr>
<td>2. BUDGET</td>
<td>(a) Estimate at Completion forecast is within plus/minus 5% of the Current Approved Budget.</td>
<td>(a) Estimate at Completion forecast exceeds Current Approved Budget between 5% to 10% or by $1,000K.</td>
<td>(a) Estimate at Completion forecast exceeds Current Approved Budget by more than 10%.</td>
</tr>
<tr>
<td>3. SCHEDULE</td>
<td>(a) Project milestones / critical path are within plus/minus two months of the current baseline schedule.</td>
<td>(a) Project milestones / critical path show slippage. Project is more than two to six months behind the current baseline schedule.</td>
<td>(a) Project milestones / critical path show slippage more than two consecutive months.</td>
</tr>
<tr>
<td></td>
<td>(b) Physical progress during the report period is consistent with incurred expenditures.</td>
<td>(b) No physical progress during the report period, but expenditures have been incurred.</td>
<td>(b) Forecast project completion date is later than the current baseline scheduled completion date by more than six months.</td>
</tr>
<tr>
<td></td>
<td>(c) Schedule has been defined.</td>
<td>(c) Detailed baseline schedule NOT finalized.</td>
<td>(c) Schedule NOT defined for two consecutive months.</td>
</tr>
<tr>
<td>4. HIGH SPEED RAIL (HSR) IMPACT</td>
<td>(a) No potential impact.</td>
<td>(a) Potential impact.</td>
<td>(a) Significant impact.</td>
</tr>
</tbody>
</table>

Schedule Legend

- **Completed**
- **Critical path**
- **Baseline/target schedule**