AGENDA

PENINSULA CORRIDOR JOINT POWERS BOARD
Bacciocco Auditorium, 2nd Floor
1250 San Carlos Avenue, San Carlos CA 94070

August 2, 2018 - Thursday

1. Call to Order / Pledge of Allegiance
2. Roll Call
3. Public Comment For Items Not on the Agenda
   Comments by each individual speaker shall be limited to two (2) minutes. Items raised
   that require a response will be deferred for staff reply.
4. Consent Calendar
   Members of the Board may request that an item under the Consent Calendar be
   considered separately
   a. Approval of Special Meeting Minutes of June 7, 2018
   b. Approval of Minutes of June 7, 2018
   c. Acceptance of Statement of Revenues and Expenditures for May and June 2018
   d. Receive Key Caltrain Performance Statistics - May and June 2018
   e. Receive State and Federal Legislative Update
   f. Approval of Resolution Opposing Proposition 6
   g. Receive Caltrain Business Plan Monthly Update - July 2018
   h. Receive Caltrain Fare Study Phase 1 Report and Means-Based Program Update
   i. Approval of the Disposition of Surplus Service Support Vehicles and Equipment
   j. Appointment of Citizens Advisory Committee Representatives
   k. Approval of Addendum #4 to the 2015 Peninsula Corridor Electrification Project Final Environmental Impact Report
   l. Approval of Addendum #5 to the 2015 Peninsula Corridor Electrification Project Final Environmental Impact Report
   m. Authorize the Execution of Contracts for Technology Related Products and Services to Vendors Under Cooperative Purchasing Programs For Fiscal Year 2019

Note: All items appearing on the agenda are subject to action by the Board. Staff recommendations are subject to change by the Board.
n. Authorize the Execution of Contracts of More Than $150,000 for Information Technology Licenses Renewals, Maintenance Services and Professional Services for Fiscal Year 2019  
RESOLUTION

o. Authorization to Execute Program Supplemental Agreements for Receipt of $3 Million in Transit and Intercity Rail Capital Program funding for Network integration planning, and amend to increase the Fiscal Year 2019 Capital budget from $42,748,255 to $45,748,255  
RESOLUTION

p. Award of Contracts for On-Call Temporary Staffing Services  
RESOLUTION

5. Chairperson’s Report

6. Report of the Citizens Advisory Committee

7. Report of the Executive Director
   a. Update on Financial Dashboard  
INFORMATIONAL
   b. Monthly Report on Positive Train Control System  
INFORMATIONAL
   c. Peninsula Corridor Electrification Project Quarterly Report and Monthly Reports for May and June 2018  
INFORMATIONAL
   d. Authorize the Executive Director to Execute Contract Change Order for Installation of Insulated Joints  
RESOLUTION
   e. Authorize the Executive Director to Execute Contract Change Order for UPRR MT-1 Pole Changes  
RESOLUTION

8. Development of a Financing Plan, Debt policy, and Declaration of Official Intent to reimburse Expenditures from Proceeds of Indebtedness  
RESOLUTION

9. City and County of San Francisco Rail Alignment and Benefits Study  
INFORMATIONAL

10. Correspondence

11. Board Member Requests

12. General Counsel Report

13. Date/Time of Next Regular Meeting: Thursday, September 6, 2018 at 10:00 a.m. San Mateo County Transit District Administrative Building, 2nd Floor, 1250 San Carlos Avenue, San Carlos, CA 94070

14. Adjourn
INFORMATION FOR THE PUBLIC

All items appearing on the agenda are subject to action by the Board. Staff recommendations are subject to change by the Board.

If you have questions on the agenda, please contact the JPB Secretary at 650.508.6279. Agendas are available on the Caltrain website at www.caltrain.com. Communications to the Board of Directors can be e-mailed to board@caltrain.com.

Location, Date and Time of Regular Meetings

Regular meetings are held at the San Mateo County Transit District Administrative Building located at 1250 San Carlos Avenue, San Carlos, one block west of the San Carlos Caltrain Station on El Camino Real, accessible by SamTrans bus Routes ECR, FLX, 260, 295 and 398. Additional transit information can be obtained by calling 1.800.660.4287 or 511.

The JPB meets regularly on the first Thursday of the month at 10 a.m. The JPB Citizens Advisory Committee meets regularly on the third Wednesday of the month at 5:40 p.m. at the same location. Date, time and place may change as necessary.

Public Comment

If you wish to address the Board, please fill out a speaker’s card located on the agenda table and hand it to the JPB Secretary. If you have anything that you wish distributed to the Board and included for the official record, please hand it to the JPB Secretary, who will distribute the information to the Board members and staff.

Members of the public may address the Board on non-agendized items under the Public Comment item on the agenda. Public testimony by each individual speaker shall be limited to two minutes and items raised that require a response will be deferred for staff reply.

Accessibility for Individuals with Disabilities

Upon request, the JPB will provide for written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in public meetings. Please send a written request, including your name, mailing address, phone number and brief description of the requested materials and a preferred alternative format or auxiliary aid or service at least two days before the meeting. Requests should be mailed to the JPB Secretary at Peninsula Corridor Joint Powers Board, 1250 San Carlos Avenue, San Carlos, CA 94070-1306; or emailed to board@caltrain.com; or by phone at 650.508.6242, or TDD 650.508.6448.

Availability of Public Records

All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at 1250 San Carlos Avenue, San Carlos, CA 94070-1306, at the same time that the public records are distributed or made available to the legislative body.

Note: All items appearing on the agenda are subject to action by the Board. Staff recommendations are subject to change by the Board.

Page 3 of 3

MEMBERS ABSENT: J. Bruins

STAFF PRESENT: J. Hartnett, C. Mau, J. Cassman, S. van Hoften, C. Gumpal

Call to Order
Vice Chair Gillett called the meeting to order at 9:33 a.m.

Roll Call
Acting District Secretary Gumpal called the roll. A quorum was present.

General Counsel Report
Legal Counsel Cassman announced the board would meet in Closed Session to discuss the following issue:

Closed Session: Conference with Legal Counsel – Existing Litigation Pursuant to Government Code Section 54956.9(d)(1)
San Mateo County Transit District v. Bohannon Development Company, (San Mateo Superior Court, Case No. 17CIV01116)

Adjourn
The meeting reconvened at 10 a.m. and adjourned.
MINUTES OF JUNE 7, 2018

MEMBERS PRESENT:  G. Gillett (Vice Chair), C. Brinkman, C. Chavez, D. Davis, J. Gee, D. Pine, C. Stone, M. Zmuda

MEMBERS ABSENT:  J. Bruins


Legal Counsel Cassman reported that the Board of Directors held a Special Meeting-(Closed Session-Litigation) regarding a condemnation issue; San Mateo County Transit District v. Bohannon Development Company, San Mateo Superior Court, Case No. 17CIV01116. No action was taken.

CALL TO ORDER / PLEDGE OF ALLEGIANCE
Vice Chair Gillett called the meeting to order at 10:04 a.m. Director Gee led the Pledge of Allegiance.

ROLL CALL
Acting District Secretary Gumpal called the roll. A quorum was present.

PUBLIC COMMENT
Roland Lebrun, San Jose, referred to his correspondence to the Board of Directors. He discussed the need to repair the former Metrolink railcars, now owned by Caltrain.

Shirley Johnson, San Francisco, discussed train capacity and bikes in the new electric multiple unit train car order.

Jeff Carter, Millbrae, inquired about the 2018 annual passenger counts.

Andy Chow, San Francisco, discussed the BART extension in the east bay.

Christina Turner, City Manager of City of Morgan Hill, discussed the potential of train expansion.

Aleta Dupree, Oakland, commented on the new mobile app, installation of the electrification poles and the new speaker timer.

Adina Levin, Friends of Caltrain, discussed Regional Measure 3, discussed Senate Bill 1 and the Metropolitan Transportation Commission’s means-based fare program.

Carolyn Crow, League of Women Voters, Burlingame, discussed opportunities for affordable housing.
CONSENT CALENDAR

a. Approval of Minutes of May 3, 2018

Public Comment
Roland Lebrun, San Jose, noted improvements to the Minutes.

b. Acceptance of Statement of Revenues and Expenditures for April 2018

c. Receive Key Caltrain Performance Statistics – June 2018

d. Receive State and Federal Legislative Update

e. Receive Capital Projects Quarterly Report – 3rd Quarter Fiscal Year 2018

Public Comment
Roland Lebrun, San Jose, inquired why the capital budget did not include funding for the 25th Avenue grade separation project.

f. Proclamation Declaring June 21, 2018 as National Dump the Pump Day

g. Authorize Award of contracts for On-Call Market Research and Survey Services

h. Authorize Amendment to Funding Agreement with the California Department of Transportation to Receive Additional Funding for the Redwood City Grade Crossing Improvement Project

i. Receive Update on Blended System Planning with California High Speed Rail

Public Comment
Roland Lebrun, San Jose, stated a robust discussion was needed on LPMG.

Motion/Second: Gee/Pine
Ayes: Brinkman, Chavez, Davis, Gillett, Gee, Pine, Stone, Zmuda
Absent: Bruins

CHAIRPERSON’S REPORT
Vice Chair Gillett stated expressed delight with the Passage of Regional Measure 3.

REPORT OF THE CITIZENS ADVISORY COMMITTEE
Brian Shaw, Chair of the Caltrain Citizens Advisory Committee, provided highlights of the Citizens Advisory Committee meeting held recently. He reported the next meeting would be held on June 20.

Public Comment
Roland Lebrun, San Jose, offered several corrections to the Advisory Committee minutes.

REPORT OF THE EXECUTIVE DIRECTOR
Jim Hartnett, Executive Director, reported the following: passenger counts will be reported on at the August meeting; was pleased with the passage of Regional Measure 3 that contains funding for several rail projects; and finally, the Metropolitan Transportation Commission recently approved framework on its means-based fares.

a. Peninsula Corridor Electrification Project Monthly Report for April 2018

John Funghi, Chief Officer-CalMod, provided a brief update on the electrification project and status of the delivery of electric multiple units (EMU). Regarding the electrification project, design and traction power are progressing, the overhead catenary system pole installation continues in both South San Francisco and San Bruno, with 59 poles installed to date and foundations being installed along the Peninsula. The final design on all major components for the EMU’s has taken place, with exception of the software systems. The first cab will receive a stress test soon in Salt Lake City, Utah.

b. Update on Financial Dashboard

Derek Hansel, Chief Financial Officer, provided a monthly update on Caltrain’s finances and grant status for March 2018. Mr. Hansel answered questions of board members.


Michelle Bouchard, Chief Operating Officer, Rail, commented on the merger between GE’s transportation unit and Wabtec, noting it would not affect Caltrain’s positive train control project. She noted her attendance at three upcoming Federal Rail Administration train control symposiums in July and August noting the application and competition of two positive train control federal grants.

Public Comment

Aleta Dupree, Oakland, commented on Caltrain’s savings account yield and noted that the ongoing electrification construction has been positive.

Shirley Johnson, San Francisco, expressed concern regarding the new car layout for bicycles and potential for theft.

Andy Chow, San Francisco, commented on SamTrans’ SFO airport service.

Roland Lebrun, San Jose, discussed the electrification pole erection and costs associated with the installation.

Director Chavez was excused from the remainder of the meeting.

APPROVE AND RATIFY THE FISCAL YEAR 2019 INSURANCE PROGRAM

Derek Hansel, Chief Financial Officer, expressed appreciation to Marshall Rush and the insurance team for the hard work this past year. He announced that Caltrain will
receive decreased insurance premiums next fiscal year due to an excellent loss history, good broker work and a reduction in self-insured retention. Questions of board members were answered by Mr. Hansel and included the cost of special events and emergency drill liability costs.

Public Comment

Roland Lebrun, San Jose, commented that insurance premiums can be reduced upon installation of intrusion protection along the right of way.

Approved by Resolution 2018-21
Motion/Second:  Pine/Davis
Ayes:   Brinkman, Davis, Gillett, Gee, Pine, Stone, Zmuda
Absent: Bruins, Chavez

ADOPTION OF FISCAL YEAR 2019 OPERATING BUDGET AND FISCAL YEAR 2019 CAPITAL BUDGET AND ESTABLISHMENT OF A REVENUE STABILIZATION FUND

Derek Hansel, Chief Financial Officer, presented the final Fiscal Year 2019 budgets by highlighting two variances from the draft presented last month: adjustments for lower insurance premiums and the anticipated funding of $25.4m from partner agencies, acknowledging that their actions have yet to be taken. He announced that a new projected deficit of $1.2m could be taken from a potential “revenue stabilization” fund. On the capital budget side, Mr. Hansel noted two adjustments related to the Guadalupe River Bridge replacement and drainage rehabilitation on Tunnel 1 and Track 4 projects.

Mr. Hansel discussed an issue regarding the use of $125m in future Federal Transit Administration funding for the Peninsula Corridor Electrification Project, being used for other projects. He explained it was determined by the Metropolitan Transportation Commission that the funding should be used to support the State of Good Repair for the right of way, including track, signals, etc. He stated the current and past capital budgets have included these funds for the State of Good Repair (FY 2014: $6.7m; FY 2015 $7m; FY 2016 $21m; FY 2017 $10.5m; FY 2018 $13.9m).

Mr. Hansel answered questions from board members regarding the filling of vacant rail positions over the next year, formula allocation methodologies for the three agencies, shuttle service subsidies, yield on cash, increase in communications and marketing,

Public Comment

Roland Lebrun, San Jose, thanked the board and Mr. Hansel for excellent budget work. He discussed the State of Good Repair, track relocation in South San Francisco and Measure B.

Adina Levin, Friends of Caltrain, expressed appreciation to the Caltrain funding partners for essentially balancing the budget.
Jeff Carter, Millbrae, reiterated Ms. Levin’s comments.

Jim Hartnett, CEO, thanked Mr. Hansel and his staff for the hard work on the budget and expressed appreciation to the member agencies for their collaborative efforts.

Approved by Resolution 2018-22
Motion/Second: Stone/Brinkman
Ayes: Brinkman, Davis, Gillett, Gee, Pine, Stone, Zmuda
Absent: Bruins, Chavez

**AWARD OF CONTRACTS FOR THE PURCHASE AND OVERHAUL OF USED AEM-7AC ELECTRIC LOCOMOTIVES FOR THE PENINSULA CORRIDOR ELECTRIFICATION PROGRAM**

There was no board or staff discussion on the item.

Public Comment

Aleta Dupree, Oakland, discussed electric locomotives and supported the award of contract.

Approved by Resolution 2018-23
Motion/Second: Gee/Stone
Ayes: Brinkman, Davis, Gillett, Gee, Pine, Stone, Zmuda
Absent: Bruins, Chavez

**AWARD OF CONTRACT FOR TUNNEL MODIFICATIONS AND TRACK REHABILITATION PROJECT FOR THE PENINSULA CORRIDOR ELECTRIFICATION PROGRAM**

John Funghi, Chief Officer-CalMod, addressed the board on this unique project in which 100-year old tunnels need modification for the electrification project. He explained that while only one bid received, there is still an opportunity to negotiate the price and despite, he recommended award of contract to Proven Management, Inc., of Oakland, CA, in the total base bid of $41,837,777. Mr. Funghi stated that there is a small window of opportunity in order to move forward and keep the project schedule intact. Board members discussed the issues surrounding the single bid, rebidding and the cost of the base bid.

Public Comment

Roland Lebrun, San Jose, discussed potential opportunities for the downtown extension and supported the tunnel modifications.

Director Gee expressed support of the project and to try and begin as soon as possible due to construction cost escalation.

Director Davis requested that the item be brought back to the board for final action with the contract amount.
Mr. Hartnett stated the change management board has reviewed the proposal and agreed with award of contract. He introduced Luis Zurinaga, chair of the change management board, who discussed the concerns with the contract timing, risk involved and the proposed duration of the project. He stated the change management board was in agreement that the contract be awarded for many reasons.

Approved by Resolution 2018-24
Motion/Second: Brinckman/Pine
Ayes: Brinkman, Gillett, Gee, Pine, Stone, Zmuda
Noes: Davis
Absent: Bruins, Chavez

**AUTHORIZE THE APPROVAL OF COOPERATIVE AND FUNDING AGREEMENTS FOR PARTICIPATION IN THE PREPARATION OF THE SAN JOSE DIRIDON INTEGRATED STATION CONCEPT PLAN**

Vice Chair Brinkman called attention to the amendments to the funding agreements which were presented to board members prior to the meeting. Elizabeth Scanlon, Principal Planner, introduced the agenda item, noting she had previously provided a presentation on the details and offered to answer questions of the members. Ms. Scanlon mentioned that the amendment to the resolution includes public engagement, suggested by a board member, subject to City of San Jose approval.

Public Comment

Nicole Soultanov, SPUR, expressed appreciation for the cooperative and funding agreement for the Diridon station and supports guiding principles.

Roland Lebrun, San Jose, recommended including BART and Google representatives in the process.

Adina Levin, Friends of Caltrain, expressed support of the comments expressed by previous speakers. She hoped to see work towards creating a seamless customer experience and thanked the board for including a community outreach process.

Approved by Resolution 2018-25
Motion/Second: Stone/Davis
Ayes: Brinkman, Davis, Gillett, Gee, Pine, Stone, Zmuda
Absent: Bruins, Chavez

**UPDATE ON THE CALTRAIN PLANNING STUDIES AND DEVELOPMENT OF TRANSIT-ORIENTED DEVELOPMENT POLICY**

Elizabeth Scanlon, Principal Planner, discussed the need for creation of three inter-related planning and policy analyses to address station access and transit-oriented development projects. She stated that the policies would create a framework for staff to make better decisions related to Caltrain stations and adjacent properties. She displayed a graphic interface tool illustrating various inputs with the corresponding
outputs which would assist staff in making better decisions. Brian Fitzpatrick, Director of Real Estate, was introduced and discussed the tool. He and Ms. Scanlon responded to questions of board members. She noted that the policy should be ready for Board adoption toward the end of 2018 and would align with the Caltrain Business Plan.

Director Pine was excused from the remainder of the meeting.

Public Comment

Leora Ross, Housing Leadership Council of San Mateo County, requested that the toolkit reflect the board’s priorities and include an affordable housing element of 20 percent.

Vaughn Wolfe, Sunnyvale, suggested showing all train connections.

Jan Stokely, Executive Director Housing Choices, requested the board commit to a housing policy for all incomes with an affordable housing element of five percent for the extremely low income category.

Adina Levin, Friends of Caltrain, supported the toolkit for successful Transit Oriented Developments, station access and parking.

Owen Cooper, Greenbelt Alliance, requested that the board include a 20 percent inclusionary affordable housing policy.

Jeff Carter, Millbrae, reiterated Mr. Wolfe’s comments and also noted that the right of way should be preserved for the potential of adding passing tracks. He inquired about the recipients income where the income from the transit oriented development goes.

Roland Lebrun, San Jose, urged the board to make corridor capacity a top priority.

Mark Rust, Design Earth, discussed a more holistic design approach to corridor projects.

Board members provided commentary on the subject.

CORRESPONDENCE
Correspondence was included in the Board members’ reading files.

Public Comment
Roland Lebrun, San Jose, requested to receive a copies of correspondence addressed to the board.

BOARD MEMBER REQUESTS
None.

GENERAL COUNSEL REPORT
None.

DATE/TIME OF NEXT REGULAR MEETING: Thursday, July 5, 2018 at 10:00 a.m.
ADJOURN
The meeting adjourned at approximately 12:33 p.m.

An audio/video recording of this meeting is available online at [www.caltrain.com](http://www.caltrain.com). Questions may be referred to the Board Secretary's office by phone at 650.508.6279 or by email to board@caltrain.com.
AGENDA ITEM #4 (c)  
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD  
STAFF REPORT

TO: Joint Powers Board

THROUGH: Jim Hartnett  
Executive Director

FROM: Derek Hansel  
Chief Financial Officer

SUBJECT: STATEMENT OF REVENUES AND EXPENSES FOR THE PERIOD ENDING  
MAY 31, 2018

ACTION  
Staff proposes that the Board of Directors accept and enter into the record the  
Statement of Revenues and Expenses for the month of May 2018.

This staff report provides a brief discussion of significant items and trends on the  
attached Statement of Revenues and Expenses through May 31, 2018. The statement  
has been designed to follow the Agency wide line item rollup as included in the  
adopted budget. The columns have been designed to provide easy comparison of  
year to date prior to current actuals for the current fiscal year including dollar and  
percentage variances. In addition, the current forecast of Revenues and Expenses is  
compared to the Revised Budget for Fiscal Year 2018.

SIGNIFICANCE

Annual Forecast: The annual forecast was updated to reflect trends in revenue and  
expense through May. The variance to prior forecast consists primarily of the following  
changes: Farebox Revenue (page 1, line 1) was decreased by $1.2 million to reflect  
lower than anticipated farebox revenue based on trends from March that have  
continued into May of lower sales in Day and Month Passes. Parking Revenue (page 1,  
line 2) was decreased by $0.3 million to reflect decreased parking lot occupancy.  
Rental Income (page 1, line 4) was increased by $0.3 million to reflect payment for an  
early lease termination with Verizon. Under Expense, Positive Train Control (page 1, line  
24) was decreased by $0.3 million due to delayed timing of expenses. Fuel and  
Lubricants (page 1, line 27) was increased by $0.3 million to reflect increased fuel costs  
in the fourth quarter. Insurance (page 1, line 29) was decreased by $2.9 million due to  
lower insurance claims. Facilities and Equipment Maintenance (page 1, line 30) was  
reduced by $0.3 million because of lower ticket vending machine maintenance costs.  
Wages and Benefits (page 1, line 37) was decreased by $0.3 million due to higher  
vacancies. Professional Services (page 1, line 40) was increased by $0.3 million due to
increased litigation expenses. Other Office Expenses and Services (page 1, line 42) was reduced by $0.5 million to reflect lower software maintenance costs, lower bank fees, and lower recruiting costs.

**Year to Date Revenues:** As of May year-to-date actual, the Total revenues (page 1 of the Statement of Revenues and Expenses, line 17) are $3.1 million higher than the prior year. This is primarily driven by Farebox Revenue (page 1, line 1), Shuttle (page 1, line 3), and Rental Income (page 1, line 4). This is partially offset by Parking Revenue (page 1, line 2), AB434 Peninsula & TA Funding (page 1, line 10) and Other Income (page 1, line 5) due to Union Pacific shared track and maintenance revenue.

**Year to Date Expenses:** As of May year-to-date actual, the Total Expense (page 1, line 48) is $0.9 million higher than the prior year-to-date actual. This is primarily due to Security Services (page 1, line 25), Fuel and Lubricants (page 1, line 27), Wages & Benefits (Page 1 line 37) and Professional Services (page 1, line 40) offset by Insurance (page 1, line 29) due to decrease in claims expense and reversal of claims reserve.

**BUDGET IMPACT**
There are no budget amendments for the month of May 2018.

**STRATEGIC INITIATIVE**
This item does not achieve a strategic initiative.

Prepared By: María Pascual, Accountant 650-508-6288
Jeannie Chen, Manager, General Ledger 650-508-6259
### PENINSULA CORRIDOR JOINT POWERS BOARD

**STATEMENT OF REVENUE AND EXPENSE**

**Fiscal Year 2018**

**May 2018**

#### 91.67% OF YEAR ELAPSED

<table>
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<tr>
<th>YEAR TO DATE</th>
<th>CURRENT</th>
<th>VARIANCE</th>
<th>%</th>
<th>APPROVED</th>
<th>BUDGET</th>
<th>FORECAST</th>
<th>VARIANCE</th>
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<tbody>
<tr>
<td>PRIOR ACTUAL</td>
<td></td>
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</tr>
</tbody>
</table>

#### REVENUE

**OPERATIONS:**

1. Farebox Revenue  
2. Parking Revenue  
3. Shuttles  
4. Rental Income  
5. Other Income  

#### TOTAL OPERATING REVENUE

- **95,074,968**  
- **98,461,647**  
- **3,386,679**  
- **3.6%**  
- **110,493,655**  
- **108,424,517**  
- **2,069,138**

#### CONTRIBUTIONS:

- **AB434 Peninsula & TA Shuttle Funding**  
- **JPB Member Agencies**  
- **Use of Reserves**

#### TOTAL CONTRIBUTED REVENUE

- **25,020,180**  
- **24,792,472**  
- **(227,707)**  
- **0.9%**  
- **35,000,943**  
- **27,735,458**  
- **7,265,485**

#### GRAND TOTAL REVENUE

- **120,095,148**  
- **123,254,119**  
- **3,158,971**  
- **2.6%**  
- **145,494,598**  
- **136,159,975**  
- **9,334,623**

#### EXPENSE

**OPERATING EXPENSE:**

- **Rail Operator Service**  
- **Positive Train Control**  
- **Security Services**  
- **Shuttles Services**  
- **Fuel and Lubricants**  
- **Timetables and Tickets**  
- **Insurance**  
- **Facilities and Equipment Maint**  
- **Utilities**  
- **Maint & Services-Bldg & Other**

#### TOTAL OPERATING EXPENSE

- **98,306,117**  
- **98,178,389**  
- **(127,728)**  
- **0.1%**  
- **119,046,048**  
- **112,744,201**  
- **6,301,847**

#### ADMINISTRATIVE EXPENSE

- **Wages and Benefits**  
- **Managing Agency Admin OH Cost**  
- **Board of Directors**  
- **Professional Services**  
- **Communications and Marketing**  
- **Other Office Expenses and Services**

#### TOTAL ADMINISTRATIVE EXPENSE

- **18,034,232**  
- **18,938,803**  
- **904,571**  
- **5.0%**  
- **25,149,875**  
- **22,117,098**  
- **3,032,776**

#### NET SURPLUS / (DEFICIT)

- **2,561,049**  
- **4,746,920**  
- **2,185,871**  
- **85.4%**  
- **0**  
- **0**  
- **50**

7/24/18 3:13 PM
## PENINSULA CORRIDOR JOINT POWERS BOARD

### INVESTMENT PORTFOLIO

**AS OF MAY 31, 2018**

<table>
<thead>
<tr>
<th>TYPE OF SECURITY</th>
<th>MATUREITY DATE</th>
<th>INTEREST RATE</th>
<th>PURCHASE PRICE</th>
<th>MARKET RATE</th>
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<tbody>
<tr>
<td>Local Agency Investment Fund (Unrestricted)</td>
<td>* Liquid Cash</td>
<td>1.755%</td>
<td>26,073,400</td>
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<tr>
<td>County Pool (Restricted)</td>
<td>** Liquid Cash</td>
<td>1.723%</td>
<td>1,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>County Pool (Unrestricted)</td>
<td>** Liquid Cash</td>
<td>1.723%</td>
<td>988,680</td>
<td>988,680</td>
</tr>
<tr>
<td>Other (Unrestricted)</td>
<td>Liquid Cash</td>
<td>0.000%</td>
<td>14,935,486</td>
<td>14,935,486</td>
</tr>
<tr>
<td>Other (Restricted)</td>
<td>*** Liquid Cash</td>
<td>0.200%</td>
<td>24,771,819</td>
<td>24,771,819</td>
</tr>
</tbody>
</table>

*$67,769,386 $67,769,386

Accrued Earnings for May 2018 $48,487.23
Cumulative Earnings FY2018 $125,863.26

* The market value of Local Agency Investment Fund (LAIF) is calculated annually and is derived from the fair value factor as reported by LAIF for quarter ending June 30th each year.

** As of May 2018, the total cost of the Total County Pool was $5,141,379,564 and the fair market value per San Mateo County Treasurer's Office was $5,129,960,696.

*** Prepaid Grant funds for Homeland Security, PTMSEA and LCTOP projects, and funds reserved for debt repayment.

The Portfolio and this Investment Report comply with the Investment Policy and the provisions of SB 564 (1995).

The Joint Powers Board has the ability to meet its expenditure requirements for the next six months.
TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Derek Hansel
Chief Financial Officer

SUBJECT: INFORMATION ON STATEMENT OF REVENUES AND EXPENSES FOR THE PERIOD ENDING JUNE 30, 2018

The Finance Division engages in many activities following the end of the June 30 fiscal year both to close out the old fiscal year and set up the new fiscal year. The demands of these activities require a longer time to produce a complete Statement of Revenues and Expenses than allowed by the normal board meeting cycle. Consequently, staff will present a Statement of Revenues and Expenses for June at the October 4th meeting of the Board of Directors. The auditors, Vavrinek, Trine, Day & Co., expect to finish the audit in late October. We expect to have the Comprehensive Annual Financial Statement finalized by November 2018.

Prepared by: Jeannie Chen, Interim Manager, General Ledger 650.508.6259
AGENDA ITEM #4 (d)
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board
THROUGH: Jim Hartnett
Executive Director

FROM: Michelle Bouchard
Chief Operating Officer, Rail

SUBJECT: KEY CALTRAIN PERFORMANCE STATISTICS – MAY AND JUNE 2018

ACTION
Staff Coordinating Council recommends that the Board receive the Performance Report for May and June 2018.

SIGNIFICANCE
Staff will provide monthly updates to Key Caltrain Performance Statistics, Caltrain Shuttle Ridership, Caltrain Promotions, Special Event Updates and Social Media Analytics.

BUDGET IMPACT
There is no budget impact.

MONTHLY UPDATE
In June 2018, Caltrain’s average weekday ridership (AWR) increased 5.3 percent to 65,324 from June 2017 AWR of 62,057. The total number of passengers who rode Caltrain in June 2018 increased 1.4 percent to 1,669,899 from 1,646,351 in June 2017. This month ticket sales for One Way tickets (up 28.3 percent) and ED One Way tickets (up 18.9 percent) increased from June 2017. Ticket sales for Day Passes (down 2.6 percent), ED Day Passes (down 6.1 percent), Monthly Passes (down 3.6 percent) and ED Monthly Passes (down 2.0 percent) decreased from June 2017. The shift in fare product usage is due to elimination of the 8-ride ticket. The recent implementation of Caltrain Mobile Ticketing (which includes One Way, ED One Way, Day Pass, ED Day Pass, Zone Upgrades and Joint Caltrain +VTA Day Pass purchases) accounted for approximately 2.3 percent (38,122 rides) of June 2018 rides and 3.2 percent of June 2018 Monthly Ticket Sales Revenue. The number of Eligible Go Pass Employees decreased 2.2 percent to 76,785 from 78,524 from June 2017. The slight decrease in Go Pass Eligible employees was likely due to the recent Go Pass price increase effective January 2018. The number of participating Go Pass Companies increased to 127 from 124 from June 2017. Farebox Revenue increased 6.2 percent to $8,871,529 from $8,350,853 in June 2017.
On-time performance (OTP) for June 2018 was 91.9 percent, compared to 94.3 percent OTP for June 2017. In June 2018 there were 905 minutes of delay due to mechanical issues compared to 523 minutes in June 2017.

Looking at customer service statistics, there were 7.6 complaints per 100,000 passengers in June 2018 which decreased from 8.2 in June 2017.

Shuttle ridership for June 2018 is up 2.5 percent from June 2017. For the station shuttles, the Millbrae-Broadway shuttle averaged 157 daily riders. The Belmont-Hillsdale shuttle averaged 44 daily riders. The weekend Tamien-San Jose shuttle averaged 27 daily riders. When the Marguerite shuttle was removed, the impact to ridership was a decrease of 0.4 percent. Due to ongoing service issues with the Shuttle Partner contractor due to a staffing shortage, Shuttle routes continued to have DNOs (Did Not Operate trips). Staff management is working on resolving the worsening issue.

**FISCAL YEAR (FY) 2018**

Looking back at FY2018 AWR increased 3.4 percent to 60,989 (record high) from FY2017 AWR 59,582. Total ridership for the fiscal year also increased 1.1 percent to 18,943,824 from 18,743,189 in FY2017. Preliminary Farebox Revenue for the FY2018 increased by 5.2 percent to $97,208,541 from $92,428,889 in FY2017.

FY2018 OTP was 94.3 percent (0.7 percent shy of the 95 percent OTP performance goal) which is slightly down 0.1 percent from 94.4 percent in FY2017. Rail Operations Management continues work with TASI and construction teams to mitigate delays due to the recent increase in project construction and single tracking over the past year.

For FY2018 complaints have averaged 7.7 per 100,000 passengers. This is lower than the number of complaints from FY2017, which averaged 8.5 complaints per 100,000 passengers.

Shuttle AWR was 8,917 for FY2018, which is a decrease of 3.9 percent over the 9,275 AWR in FY2017. Shuttle ridership continues to be largely influenced by Stanford’s Marguerite shuttle, which constitutes for approximately 75 percent of Caltrain FY2018 shuttle ridership.

**Caltrain Promotions – June 2018:**

**Dump the Pump Event** - On Thursday, June 21, Caltrain hosted a Dump the Pump event at the Millbrae station in conjunction with the launch of the new SamTrans Route SFO. As part of the celebration, Caltrain staff and the public were invited to come out and support the effort to try transit. Entertainment included giveaways and raffle prizes and music provided by Wild 94.9 radio station. Radio personality Julian Lee from Wild 94.9 was on location to get the crowd pumped up about dumping the pump. The event was promoted heavily by boosted organic social media, radio spots on Wild 94.9, and new release/Peninsula Moves blog. The event was also promoted on partnering web and social platforms.
Gay Pride Parade - Caltrain provided extra train service to the 48th annual San Francisco Pride Festivities and Parade on Sunday, June 24. To accommodate the large crowds heading to the parade on Sunday, including an afternoon Giants game, four extra trains were added to the schedule. Caltrain used heavy social media to promote the extra train service, news release and the Peninsula Moves video blog. The extra trains were posted on the Special Events web page.

San Jose Earthquakes vs. LA Galaxy at Stanford Stadium - On Saturday, June 30, the San Jose Earthquakes played its annual California Clasico at Stanford Stadium. Caltrain made special stops at the Stanford Stadium station to make it more convenient for fans to get to the stadium. Staff was at the station to assist customers with directions and Clipper cards. Communications included organic social media, updated on Special Events web page, news release/Peninsula Moves video blog and VMS/Conductor announcements.

Caltrain Digital Metrics - JUNE 2018

New Followers
+ 514
June 18 - 185,329
May 18 - 184,815
June 17 - 152,283

Top Tagged Issues
1. Delays
2. Bike Car
3. Giants/Belmont
4. Capacity
5. Conductor Compliment

Caltrain.com Pageviews
June 18 - 928,520
May 18 - 832,914
June 17 - 895,505

Monthly Yelp & FB Rating
🌟🌟
(3 May reviews)

Mobile App - June, 18
16,120 - Downloads
23,417 - Active Users
2.0 - Overall Rating
Social Media Impression Spikes
June, 2018

Your Tweets earned 1.3M impressions over this 30 day period

June 4
SB226 No Load
366 M of E Delay Mins
691 Daily Delay Mins

June 6
NB233 & NB 273 No Load
336 M of E Delay Mins
835 Daily Delay Mins

June 18
SB366 Ground Relay
369 Capital Projects Delay Mins
723 Daily Delay Mins

Impressions sometimes appear the day after an Incident as Twitter users view the post the next day.

Prepared by: James Namba, Marketing Specialist 650.508.7924
Jeremy Lipps, Social Media Officer 650.622.7845
Patrice Givens, Data Specialist 650.508.6347
### Table A

#### May 2018

<table>
<thead>
<tr>
<th></th>
<th>FY2017</th>
<th>FY2018</th>
<th>% Change</th>
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<tbody>
<tr>
<td>Total Ridership</td>
<td>1,654,725</td>
<td>1,673,495</td>
<td>1.1%</td>
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<tr>
<td>Average Weekday Ridership</td>
<td>61,142</td>
<td>62,823</td>
<td>2.7%</td>
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<tr>
<td>Total Farebox Revenue</td>
<td>8,214,852</td>
<td>8,556,687</td>
<td>4.2%</td>
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<tr>
<td>On-time Performance</td>
<td>94.2%</td>
<td>94.5%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Average Caltrain Shuttle Ridership</td>
<td>9,091</td>
<td>9,141</td>
<td>0.5%</td>
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#### Year to Date

<table>
<thead>
<tr>
<th></th>
<th>FY2017</th>
<th>FY2018</th>
<th>% Change</th>
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<tr>
<td>Total Ridership</td>
<td>17,096,838</td>
<td>17,273,925</td>
<td>1.0%</td>
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<tr>
<td>Average Weekday Ridership</td>
<td>58,691</td>
<td>60,595</td>
<td>3.2%</td>
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<tr>
<td>Total Farebox Revenue</td>
<td>84,078,035</td>
<td>88,337,012</td>
<td>5.1%</td>
</tr>
<tr>
<td>On-time Performance</td>
<td>94.4%</td>
<td>94.6%</td>
<td>0.2%</td>
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<tr>
<td>Average Caltrain Shuttle Ridership</td>
<td>9,285</td>
<td>8,877</td>
<td>-4.4%</td>
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### Table B

#### June 2018

<table>
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<th></th>
<th>FY2017</th>
<th>FY2018</th>
<th>% Change</th>
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</thead>
<tbody>
<tr>
<td>Total Ridership</td>
<td>1,646,351</td>
<td>1,669,899</td>
<td>1.4%</td>
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<tr>
<td>Average Weekday Ridership</td>
<td>62,057</td>
<td>65,324</td>
<td>5.3%</td>
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<tr>
<td>Total Farebox Revenue</td>
<td>8,350,853</td>
<td>8,871,529</td>
<td>6.2%</td>
</tr>
<tr>
<td>On-time Performance</td>
<td>94.5%</td>
<td>91.9%</td>
<td>-2.8%</td>
</tr>
<tr>
<td>Average Caltrain Shuttle Ridership</td>
<td>9,147</td>
<td>9,373</td>
<td>2.5%</td>
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#### Year to Date

<table>
<thead>
<tr>
<th></th>
<th>FY2017</th>
<th>FY2018*</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Ridership</td>
<td>18,743,189</td>
<td>18,943,824</td>
<td>1.1%</td>
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<tr>
<td>Average Weekday Ridership</td>
<td>58,972</td>
<td>60,989</td>
<td>3.4%</td>
</tr>
<tr>
<td>Total Farebox Revenue*</td>
<td>92,428,889</td>
<td>97,208,541</td>
<td>5.2%</td>
</tr>
<tr>
<td>On-time Performance</td>
<td>94.4%</td>
<td>94.3%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Average Caltrain Shuttle Ridership</td>
<td>9,275</td>
<td>8,917</td>
<td>-3.9%</td>
</tr>
</tbody>
</table>

*Preliminary FY2018 Farebox Revenue as of 7/18/18
Graph A (June)

Caltrain Average Weekday Ridership

Graph B

Caltrain Mobile Ticketing - Monthly Sales by Ticket Type

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Zone Upgrade</td>
<td>145</td>
<td>247</td>
<td>610</td>
<td>724</td>
<td>815</td>
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<tr>
<td>Day Pass</td>
<td>1,003</td>
<td>2,681</td>
<td>5,108</td>
<td>7,027</td>
<td>8,727</td>
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<tr>
<td>One-Way</td>
<td>2,136</td>
<td>6,194</td>
<td>10,034</td>
<td>14,734</td>
<td>20,668</td>
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PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Seamus Murphy
Chief Communications Officer

SUBJECT: STATE AND FEDERAL LEGISLATIVE UPDATE

ACTION
Staff Coordinating Council recommends the Board receives the attached memos. Staff will provide regular updates to the Board in accordance with Legislative Program.

SIGNIFICANCE
The 2018 Legislative Program establishes the principles that will guide the legislative and regulatory advocacy efforts. Based on those principles, staff coordinates closely with our Federal and State advocates on a wide variety of issues that are considered in Congress and the State legislature. The attached reports highlight the recent issues and actions that are relevant to the Board.

Prepared By: Casey Fromson, Government and Community Affairs Director 650-508-6493
With government funding set to expire on September 30, Congress is working quickly to pass FY 2019 appropriations spending bills. Senate Majority Leader Mitch McConnell (R-KY) and House Speaker Paul Ryan (R-WI) have already coordinated on part of the summer’s spending bill schedule, and are working to package some bills into minibuses to move them across the floor.

On June 8, the House passed its first “minibus” package of three appropriations bills—Energy-Water, Military Construction-Veterans Affairs (VA), and Legislative Branch spending measures—by a vote of 235 to 179. The measure was opposed by most House Democrats, and 16 Republicans. Despite increases in funding for several programs, including veterans’ health care, Democratic leaders opposed the boosts to security-related programs that would be offset by reductions to other domestic programs.

On June 25, the Senate passed its first minibus package by a vote 86 to 5. Like the House minibus, it included Energy-Water, Military Construction-VA, and Legislative Branch Appropriations bills. Despite their efforts, however, it is likely that Congress may need to package the appropriations bills as an omnibus to get a final spending package through both chambers by the end of the year.

FY 2019 Transportation/HUD Appropriations: On June 7, the Senate Appropriations Committee unanimously approved the FY 2019 Transportation/HUD Appropriations bill which provides funding for the Department of Transportation (DOT) and Department of Housing and Urban Development (HUD). The measure would fund the DOT at $26.6 billion, $698 million less than enacted for FY 2018. The bill includes funding for Capital Investment Grant program, transit grants, and BUILD (formerly TIGER) grants, all areas that the administration had targeted for cuts or elimination. The House Appropriations Committee approved its FY 2019 Transportation/HUD Appropriations bill on May 23. The funding included in both the House and Senate Transportation/HUD Appropriations bills include enough funding for the Core Capacity program so that the Peninsula Corridor Electrification Project should receive $100 million. Summary of the DOT funding is in the chart below.
# TRANSPORTATION FY 2019 FEDERAL FUNDING PRIORITIES

## TRANSPORTATION, HUD, AND RELATED AGENCIES

<table>
<thead>
<tr>
<th>Department of Transportation</th>
<th>FY 2018 Enacted</th>
<th>FY 2019 President's Request</th>
<th>FY 2019 House</th>
<th>FY 2019 Senate</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUILD</td>
<td>$27.414 B</td>
<td>$16.408 B</td>
<td>$27.9 B</td>
<td>$26.767 B</td>
</tr>
<tr>
<td>• Planning Grants</td>
<td>$15 M</td>
<td>$0</td>
<td>$0</td>
<td>$15 M</td>
</tr>
<tr>
<td>Federal Aviation Administration (FAA)</td>
<td>$18.115 B</td>
<td>$16.122 B</td>
<td>$17.69 B</td>
<td>$17.701 B</td>
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<tr>
<td>• Airport Improvement Program (AIP)</td>
<td>$4.35 B</td>
<td>$3.35 B</td>
<td>$3.85 B</td>
<td>$4.1 B</td>
</tr>
<tr>
<td>Federal-Aid Highways (FAST Act levels)</td>
<td>$44.23 B</td>
<td>$45.268 B</td>
<td>$45.268 B</td>
<td>$45.268 B</td>
</tr>
<tr>
<td>Highway Infrastructure (funded from General Fund rather than HTF)</td>
<td>$2.525 B</td>
<td>$0</td>
<td>$4.25 B</td>
<td>$3.3 B</td>
</tr>
<tr>
<td>Federal Motor Carrier Safety Grants</td>
<td>$561.8 M</td>
<td>$381.8 M</td>
<td>$381.8 M</td>
<td>$381.8 M</td>
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<tr>
<td>National Highway Traffic Safety Administration</td>
<td>$914.375</td>
<td>$947.204</td>
<td>$981.577</td>
<td>$981.577</td>
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<tr>
<td>• Highway Traffic Safety Grants</td>
<td>$597.629 M</td>
<td>$610.208 M</td>
<td>$610.208 M</td>
<td>$610.208 M</td>
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<tr>
<td>Federal Railroad Administration (FRA)</td>
<td>$3.091 B</td>
<td>$854.025 M</td>
<td>$3.153 B</td>
<td>$2.768 B</td>
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<tr>
<td>• Amtrak</td>
<td>$1.941 B</td>
<td>$737.891 M</td>
<td>$1.941 B</td>
<td>$1.941 B</td>
</tr>
<tr>
<td>• Magnetic Levitation Technology Deployment (MAGLEV) Program</td>
<td>$0</td>
<td>$0</td>
<td>$150 M</td>
<td>$0</td>
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<tr>
<td>• Federal-State Partnership for State of Good Repair</td>
<td>$250 M</td>
<td>$0</td>
<td>$500 M</td>
<td>$300 M</td>
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<tr>
<td>• Consolidated Rail Infrastructure Safety Grants</td>
<td>$592.547 M</td>
<td>$0</td>
<td>$300 M</td>
<td>$255 M</td>
</tr>
<tr>
<td>Federal Transit Administration (FTA)</td>
<td>$12.4 B</td>
<td>$11.22 B</td>
<td>$13.621 B</td>
<td>$13.513 B</td>
</tr>
<tr>
<td>• Transit Formula Grants (FAST Act levels)</td>
<td>$10.3 B</td>
<td>$9.9 B</td>
<td>$9.9 B</td>
<td>$9.9 B</td>
</tr>
<tr>
<td>• Transit Infrastructure (funded from Treasury rather than HTF)</td>
<td>$834 M</td>
<td>$0</td>
<td>$800 M</td>
<td>$800 M</td>
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<tr>
<td>• Capital Investment Grants**</td>
<td>$2.644</td>
<td>$1 B</td>
<td>$2.613 B</td>
<td>$2.552 B</td>
</tr>
</tbody>
</table>
The FY 2018 Omnibus Appropriations bill did not include the same categories for the Capital Investment Grant program as the House and Senate FY 2019 THUD bills.

The Senate THUD Appropriations bill includes report language related to the MPO’s transportation priorities—BUILD, project streamlining, and New Starts/Small Starts:

- **BUILD Grants:** “The National Infrastructure Investments program has become integral to the economic success of communities throughout the country for 10 years. The Committee is concerned with the Department’s use of this flexible and popular program to insert controversial policies from the administration’s infrastructure proposal, which the administration has acknowledged will not be enacted this year. These policies have not been agreed to or voted on by Congress, and there is clear bipartisan opposition to some of them.

In fiscal year 2018, the Committee explicitly prohibited the Department from using Federal share as a selection criteria in awarding projects and the Committee continues that prohibition. Despite this prohibition, the Department chose to use an applicant’s ability to generate non-Federal revenue as selection criteria in the most recent notice of funding opportunity [NOFO], in defiance of the intent of Congress. Favoring applicants that have recently generated non-Federal revenue is detrimental to areas that have high State and local gas tax levels. The NOFO also fails to recognize that transportation agencies that apply for funding under this NOFO are not able to raise revenue without enactment of a law by an independent legislative body. Holding transportation agencies responsible for raising revenue is unrealistic and detrimental to this grant program. The Committee recommendation prohibits the Department from using these criteria and directs the Department to use selection criteria from the fiscal year 2016 NOFO.”

- **Financing for Transportation Oriented Development (TOD):** “The Committee recognizes the potential of TOD to facilitate economic development, the construction of affordable housing, and more livable and healthier communities within walking distance of, or accessible to, public transit. Unfortunately, the Department has administered programs where TOD is an eligible activity with an impracticable, narrow definition of TOD that leads to near universal rejection of applications for Federal assistance. The Committee directs the Secretary to encourage the use of the Department’s financing
programs for TOD, where eligible, by issuing clear guidance and working with applicants to ensure projects meet the congressional intent of eligibility.”

- **Highway Infrastructure:** Of the $3,300,000,000 from the general fund (Funding is available until September 30, 2022):
  - $2,389,200,000 is for road and bridge projects eligible under the surface transportation block grant program (STBG)
  - $15,800,000 is for the Puerto Rico highway program
  - $5,000,000 is for the territorial highway program
  - $90,000,000 is for the railway-highway crossings program,
  - $800,000,000 is for a national program to improve and replace bridges in poor condition

- **Transit Infrastructure:** Of the $800 million available for in transit infrastructure grants from the General Fund:
  - $400,000,000 is available for buses and bus facilities grants
    - $209,104,000 is provided for formula grants
    - $161,446,000 is provided for competitive grants
    - $29,450,000 is provided for low or no emission grants
  - $362,000,000 is available for state of good repair grants
  - $30,000,000 is provided for high density State apportionments
  - $2,000,000 is provided for the bus testing facility
  - $6,000,000 is provided for bus testing facilities

- **Capital Investment Grant Project Pipeline:** “The Committee is concerned with unnecessary delays for projects seeking advancement into engineering or a grant agreement. These delays are costly for local project sponsors and create uncertainty for transit planners and providers across the country. The Committee directs the Secretary to continue to advance eligible projects into project development and engineering in the capital investment grant evaluation, rating, and approval process pursuant to 49 U.S.C. 5309 and section 3005(b) of the FAST Act in all cases when projects meet the statutory criteria. The Committee also directs the Secretary to provide notice to the House and Senate Committees on Appropriations of not less than 90 days prior to altering or rescinding any rule, circular or guidance relating to the evaluation, rating and approval process pursuant to 49 U.S.C. 5309.”

- **Delays in Grants:** “The Committee is concerned with the increased number of programmatic decisions that have been elevated to the Office of the Secretary, leading to delays in funding and lack of cohesive policies between the Department and the modes. The Committee is particularly concerned with the slow pace of awarding and obligating funding from competitive discretionary programs appropriated in fiscal year 2017 and fiscal year 2018. The Committee directs the Department to abide by both the will and intent of Congress in all funding and policy decisions, and to consult with the House and Senate Committees on Appropriations prior to issuing all notices of funding opportunities.”
Categorical Exclusions: “The Committee notes that the purpose of categorical exclusions is to achieve cost savings and speed projects to construction. The Committee directs FHWA to work with stakeholders, including State DOTs, to determine how best to minimize the bureaucratic burden of qualifying a project as a CE.”

Rescissions Legislation: On June 20, the Senate voted 48-50 against discharging the Administration’s $14.7 billion rescissions legislation from the Senate Appropriations Committee. Senators Susan Collins (R-ME) and Senator Richard Burr (R-NC) voted against.

ADMINISTRATION

FTA Announces Final Rule to Encourage Private Sector Investment: The Federal Transit Administration (FTA) finalized a rule on May 30 to encourage greater use of public-private partnerships (P3) in capital projects. The rule, Private Investment Project Procedures, goes into effect on June 29. It sets private investment project procedures that FTA grantees can utilize to petition for waivers or modifications from mandatory agency rules, guidance, or practices that may hinder their ability to use P3s to help finance transit projects. The new rule will help the federal government develop more effective approaches to spur private participation and investment in project planning, development, finance, design, construction, maintenance and operations, according to the FTA.

Under the rules, those who receive federal funding, will be able to identify rules, practices, procedures or guidance that impedes the use of a P3 or private investment. They can then ask the FTA to grant a waiver or modification of a requirement if certain criteria are met. The rule does not list which FTA requirements can be waived, but FTA is to allowed to modify or waive labor standard or NEPA.

White House Proposes Structural Realignment of the Executive Branch: On June 21, the White House Office of Management and Budget (OMB) released a plan to reorganize the federal government. The plan was criticized by both Republican and Democratic members. The suggested reforms include:

- Combining the Department of Labor and the Department of Education into a new Department of Education and Workforce.
- Dividing the Army Corps of Engineers so that its port, inland waterways, and dredging functions would go to the Department of Transportation (DOT) and its water supply functions would move to the Department of Interior (DOI).
- Removing food stamps and other nutrition programs from the Department of Agriculture (USDA) to the Department of Health and Human Services (HHS), which would be renamed Department of Health and Public Welfare.
- Moving rural housing assistance programs from the USDA and combining them with the urban housing assistance programs at the Department of Housing and Urban Development (HUD).
- Moving the Food and Drug Administration (FDA) from the HHS to the USDA’s Food Safety and Inspection Service.
- Merging the Department of Commerce’s National Marine Fisheries Service and DOI’s Fish and Wildlife Service (FWS) into one department.
- Merging the DOI’s Central Hazardous Materials Program and the USDA’s Hazardous Materials Management program into the Environmental Protection Agency (EPA)’s Superfund program.
- Transferring FEMA’s port security and rail/transit security grant programs to DOT.

**White House Seeks Comment on NEPA Changes:** The White House Council on Environmental Quality (CEQ) is seeking public comment on various potential procedural changes under the National Environmental Policy Act (NEPA). A notice will be published in the Federal Register on June 27, asking 20 specific questions about changing NEPA policy. These changes range government-wide, and include such policies as changing rules on the timing of agency actions, and requiring that reviews involving multiple agencies be conducted in “concurrent, synchronized, timely, and efficient” manner. The notice also suggests changing the definitions of key phrases such as “major federal action,” “effects,” and “significantly” to decrease the number of federal actions required in environmental reviews. CEQ will take public comment on the notice for 30 days after it is published, and subsequently will propose the procedural changes. After this, the agency will once again be required to accept public comment before finalizing the new procedures.

**CONGRESS**

**Meeting the Needs of Self-Driving Cars:** With the year’s legislative calendar practically full, lawmakers overseeing transportation and infrastructure policy are looking ahead to the next ‘big bill’ – surface transportation. Current funding goes through 2020 but some are already thinking about what may be included in the next surface transportation bill they will write and need to pass next year. At the top of the list is autonomous vehicles.

The Senate Environment and Public Works Committee held a hearing on June 13th on the Effects of Emerging Autonomous Technologies on America’s Roads and Bridges. A bill to put a federal framework in place for encouraging research and experimentation in self-driving technology, the AV START Act (S. 1885) has stalled in the Senate, in part over worries in larger cities of less control of their streets. The bill would regulate self-driving cars and trucks lighter than 10,000 pounds, such as those developed by companies including Ford Motor Co. and Alphabet Inc.’s Waymo. While panelists agreed that automated vehicles could potentially reduce injuries and deaths on American roadways, there is much infrastructure work yet to be done, and these upgrades do not have a clear way to be paid for currently. Highway markings, signage, lighting and shared road information databases across cities and states were among changes needed to ensure the vehicles don’t put other road users at risk.

**Legislative Landscape**

With only 17 legislative days left before the August congressional recess, Senate Majority Leader Mitch McConnell (R-KY) and Minority Leader Chuck Schumer (D-NY) have identified their parties’ priorities for the summer. The Senate is expected to consider the Farm Bill after passing the first minibus appropriations bill, and then will consider the Water Resources
Development Act (WRDA) of 2018. The Senate will be in session through much of August, with McConnell citing the need to move legislation and Administration nominees. For the week of August 6, the Senate will be in recess, and will then return to Washington on a revised schedule. McConnell has noted that he hopes to use the time to confirm administration nominees and work on appropriations bills. While Democrats criticized McConnell’s decision to cancel the August recess, which they claimed was to prevent them from using the time to return to their states for election campaigning, Schumer said that the party would use the work period to focus on a renewed push to reform health care. Schumer identified five priorities for measures that Democrats will focus on:

- Expanded access to Medicare;
- Increasing tax credits to help families afford the cost of health care;
- Creating a National Insurance Program to lower premiums;
- Ensuring that individuals with pre-existing conditions are not denied or priced out of insurance; and
- Lowering the cost of prescription drugs.

Health care, immigration, appropriations, and nominations are likely to consume the majority of Congress’ summer work. However, when they return in September for the final work period before midterm elections in November, issues such as net neutrality, and other controversial legislative lightning rods may come up.
July 12, 2018

TO: Peninsula Corridor Joint Powers Board Members

FROM: Mike Robson and Trent Smith, Edelstein Gilbert Robson & Smith, LLC
Joshua W. Shaw and Matt Robinson, Shaw / Yoder / Antwih, Inc.

RE: STATE LEGISLATIVE UPDATE – JULY 2018

The Legislature adjourned for its Summer Recess on July 6 and will return to action on August 6 to wrap up its work for the 2018 Legislative Session. Final adjournment will be on August 31 and the Governor will have until September 30 to sign and veto all the legislation that is sent to him in the final weeks of the Legislative Session.

State Budget
Prior to the legislative recess, the Legislature adopted a State Budget which the Governor signed into law on June 27. California’s operating budget is approximately $200 billion with most revenues dedicated to public education. There were two important elements of the 2018-2019 Budget Act that are pertinent to the Peninsula Corridor Joint Powers Board.

First, this Budget includes the first full year of increased transportation funding from SB 1 of 2017, with $4.6 billion of revenues dedicated to improved roadways and transit funding, including $721 million for passenger rail and transit.

Second, the adopted State Budget will fully fill the state’s rainy-day fund as required by Proposition 2 of 2014. Once the rainy-day fund is fully funded, rainy day fund revenues will be directed to infrastructure spending. The 2018-2019 Budget Act included a budget trailer bill, AB 1831, that establishes authority for spillover infrastructure spending beginning in 2019-2020 Budget to go towards rail modernization. A key component of AB 1831 is the creation of a Rail Modernization Improvement Program that will prioritize shared rail corridors for the spillover infrastructure spending.

Legislation
Going into the Summer Recess, the Legislature completed all actions of the policy committees. In August, only the Appropriations Committees in each house will be holding hearings on legislation still pending in 2018.
AB 1912 (Rodriguez) – Retirement Liability for Members of Joint Powers Agencies
As originally introduced, this bill would have held current and former member agencies of a Joint Powers Agency (JPA) jointly and severally liable for retirement obligations of employees of the JPA or a dissolved JPA.

Due to intense opposition from cities, counties, and special districts, the author has agreed to amend the bill to remove the joint and several liability provisions and to instead impose proportional liability among agencies only in instances where the JPA terminates its retirement contract with a retirement system.

While it is a JPA, the Peninsula Corridor Joint Powers Board is not the employer of Caltrain employees and therefore the provisions of this bill should not be of concern.

SB 2034 (Kalra) – Human Trafficking
This bill would require the operator of an intercity passenger rail, light rail, or bus station to train its employees to recognize signs of human trafficking and how to report to authorities. The training required by this bill would need to be completed by January 1, 2021. However, the requirements in the bill are not applicable to any operator that already had a human trafficking awareness program in place prior to January 1, 2019.

AB 2034 passed the Senate Judiciary Committee on June 19 on a 7-0 vote. There is no opposition to this measure and we expect the bill to pass the Senate in August.

AB0 2065 (Ting) – Surplus Land
AB 2065 would have placed new requirements on local government agencies with respect to the disposition and use of surplus land to prioritize housing. This was a highly controversial bill sponsored by the Non-Profit Housing Coalition of Northern California. It was opposed by a broad coalition of local government agencies objecting to provisions of the bill that defined leased land as surplus land.

The author committed to work with opponents, and the Caltrain real estate and government affairs team worked diligently to develop compromise language to share with the author as did other opponents to the bill. The bill narrowly passed the Assembly Local Government Committee in May but was eventually held without a vote in the Assembly Appropriations Committee where it died.
July 13, 2018

TO: Board of Directors, Peninsula Corridor Joint Powers Board

FM: Mike Robson and Trent Smith, Edelstein Gilbert Robson & Smith LLC
Joshua W. Shaw and Matt Robinson, Shaw / Yoder / Antwih, Inc.

RE: Report on Proposition 6 / Repeal of SB 1 Efforts

To provide the Board timely updates on the prospects for repeal of the state’s landmark transportation funding measure, Senate Bill 1 (Beall and Frazier) – the Road Repair and Accountability Act of 2017 – we have prepared this report.

SB 1 Repeal Measure Qualifies for November Ballot

California’s Secretary of State announced on June 25 that the statewide initiative to repeal SB 1 had qualified for the November ballot, as Proposition 6. Voters will now determine the fate of more than $5 billion in annual funding to repair and upgrade the state’s transportation infrastructure, including more than $1 billion a year available to public transit systems. The initiative is one of 12 on this year’s general election ballot.

As we have noted in the past, many observers believe the repeal is a scheme to boost Republican voter turnout in November and is funded by Republican members of California’s Congressional delegation, their Washington, D.C. leadership, and Republican candidate for California Governor John Cox.

In response to the news of the measure’s qualification, Governor Jerry Brown took to social media, stating, “This flawed and dangerous measure pushed by Trump’s Washington allies jeopardizes the safety of millions of Californians by stopping local communities from fixing their crumbling roads and bridges. Just say no.”

In a press release issued following the announcement of the measure’s qualification, the Coalition to Protect Local Transportation Investments noted, “there are more than 5,000 state and local transportation improvement projects currently underway or planned in every community throughout California,” all of which are now at risk.

Coalition Opposed to Proposition 6 Grows

Originally formed to support Proposition 69 (the measure to protect SB 1 revenues from legislative diversion, overwhelmingly passed by California voters on the June ballot), the Coalition to Protect Local Transportation Investments has pivoted, to become the No on Prop 6: Stop the Attack on Bridge & Road Safety campaign committee; sponsored by business, labor, local governments and transportation advocates, the committee’s major funding so far comes from the California Alliance for Jobs, Southern California Partnership for Jobs, and, the State Building and Construction Trades Council of California.
The broad coalition of organizations opposed to Proposition 6 – numbering close to 250 so far (see the full list, attached) – is comprised of organizations representing business, environmental, transportation, local government, senior citizen, labor, public safety, public interest, social justice, and taxpayer interests.

The coalition’s leadership includes the California Transit Association and many local public transit agencies. (The California Transit Association has contributed $250,000 to the campaign. Association staff are working with private sector vendors supplying goods and services to the transit industry, educating those companies as to the threats to enhanced transit service posed by Proposition 6; many of those companies have and will be contributing to the campaign.)

**We encourage Caltrain to formally commit its support for the “No on Proposition 6” campaign.**

Please visit [noprop6.com](http://noprop6.com) to register your agency with the campaign. (Public agency officials and staff should not spend agency time or public resources using the website for other purposes.)

**Agencies Educate Citizens**

While by law no public agency official may advocate that citizens vote one way or another on a state or local ballot measure, it is a well-established principle that public agency staff may educate their governing boards, the press, and local citizens as to the impact of a ballot measure’s passage or failure.

In this case, organizations such as the California Transit Association have for months been urging local public transit agencies to make clear to the public the projects and services at risk should Proposition 6 pass. SB 1 provides annually more than $1 billion in potential transit investments, through a mix of transit-dedicated and transit-eligible funding programs:

<table>
<thead>
<tr>
<th>Transit-Dedicated Funding Programs</th>
<th>Transit-Eligible Funding Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Transit Assistance Program +$300M/yr</td>
<td>Solutions for Congested Corridors +$250M/yr</td>
</tr>
<tr>
<td>STA Program State of Good Repair +$105M/yr</td>
<td>Local Partnership Program +$100M/yr</td>
</tr>
<tr>
<td>Transit and Intercity Capital Rail Program +$245M/yr</td>
<td></td>
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<tr>
<td>Intercity Passenger Rail +$ 22M/yr</td>
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<tr>
<td>Commuter Rail +$ 22M/yr</td>
<td></td>
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<tr>
<td><strong>Total</strong> +$694M/yr</td>
<td><strong>Total</strong> +$350M/yr</td>
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</table>

The bottom line, as summarized in a recent report by the Legislative Analyst’s Office, is this: if SB 1 is repealed, $5 billion in transportation revenue is wiped off the books and voters will have to approve any future increases on fees and taxes involving a motor vehicle (e.g. fuel taxes, vehicle registration fees, license fees, a vehicle miles travelled fee, and, possibly, Cap and Trade auction allowances).

In response to the risk Proposition 6 poses to vital transit investments all over the state, California’s transit agencies are taking many steps to make clear the negative impact on their projects and services. Transit governing boards have asked, and transit agency staff are letting the public know, the dire answers to these questions:

- What happens to your service and capital improvements if SB 1 funding is repealed?
- What routes will be scaled back?
- What new vehicle purchases will you cancel?
- What rail extensions must be sacrificed?
- How high will fares likely rise if you lose operating funding?
• How much older and less safe will your fleet and facilities grow if you lose vital state of good repair dollars?
<table>
<thead>
<tr>
<th>Bill ID/Topic</th>
<th>Location</th>
<th>Summary</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AB 1831</strong> Committee on Budget</td>
<td>A. CHAPTERED 6/27/2018-Approved by the Governor. Chaptered by Secretary of State - Chapter 43, Statutes of 2018.</td>
<td>Current law specifies the length of terms of appointive members of the Student Aid Commission, except student representatives, the governing body of the California Exposition and State Fair, and the High-Speed Rail Authority as 4 years, and appointive members of the Employment Training Panel as 2 years. This bill would delete the length of terms of the members appointed by the Speaker of the Assembly to the Student Aid Commission, the governing body of the California Exposition and State Fair, the High-Speed Rail Authority, and the Employment Training Panel, and would make conforming changes.</td>
<td>Supported July 2018 (via Board Chair)</td>
</tr>
<tr>
<td><strong>AB 1912</strong> Rodriguez D</td>
<td>S. APPR. 7/3/2018-Read second time and amended. Re-referred to Com. on APPR. 8/6/2018 10 a.m. - John L. Burton Hearing Room (4203) SENATE APPROPRIATIONS, PORTANTINO, Chair</td>
<td>The Joint Exercise of Powers Act generally authorizes 2 or more public agencies, by agreement, to jointly exercise any common power. Under the act, if an agency is not one or more of the parties to the agreement but is a public entity, commission, or board constituted pursuant to the agreement, the debts, liabilities, and obligations of the agency are the debts, liabilities, and obligations of the parties to the agreement, unless the agreement specifies otherwise. This bill would eliminate that authorization, and would specify that if an agency established by a joint powers agreement participates in, or contracts with, a public retirement system, member agencies, both current and former to the agreement, would be required, prior to a termination or a decision to dissolve or cease the operations of the agency, to mutually agree as to the apportionment of the agency’s retirement obligations among themselves, provided that the agreement equals 100% of the retirement liability of the agency.</td>
<td>Watch</td>
</tr>
<tr>
<td><strong>AB 1969</strong> Salas D</td>
<td>A. DEAD 5/11/2018-Failed Deadline pursuant to Rule 61(b)(6). (Last location was A. TRANS. on 3/19/2018)</td>
<td>Current law sets forth alternative ways an transit operator may qualify for funding, including a standard under which the allocated moneys do not exceed 50% of the operator’s total operating costs, as specified, or the maintenance by the operator of a specified ratio of fare revenues to operating costs. Current law generally establishes the required fare revenues to operating cost ratio as 20% in urbanized areas and 10% in nonurbanized areas. This bill would authorize a transportation planning agency to grant an exemption, for up to 5 years, to an operator that fails to maintain the applicable fare-revenue-to-cost ratio if, based on that agency’s determination, an exemption is appropriate, as specified. The bill would require the agency to consider specified factors in determining whether to</td>
<td>Watch</td>
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<tr>
<td>Bill Number</td>
<td>Sponsor</td>
<td>Description</td>
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<tr>
<td>AB 2034</td>
<td>Kalra D</td>
<td>Would require specified businesses or other establishments that operate an intercity passenger rail, light rail, or bus station, on or before January 1, 2021, to train new and existing employees who may interact with, or come into contact with, a victim of human trafficking or who are likely to receive, in the course of their employment, a report from another employee about suspected human trafficking, in recognizing the signs of human trafficking and how to report those signs to the appropriate law enforcement agency, as specified.</td>
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<td>AB 2065</td>
<td>Ting D</td>
<td>Current law defines “local agency” for these purposes as every city, county, city and county, and district, including school districts of any kind or class, empowered to acquire and hold real property. This bill would expand the definition of “local agency” to include sewer, water, utility, and local and regional park districts, joint powers authorities, successor agencies to former redevelopment agencies, housing authorities, and other political subdivisions of this state and any instrumentality thereof that is empowered to acquire and hold real property, thereby requiring these entities to comply with these requirements for the disposal of surplus land.</td>
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<tr>
<td>AB 2249</td>
<td>Cooley D</td>
<td>The Uniform Public Construction Cost Accounting Act permits the governing body of a public agency, in the event all bids received for the performance of that public project are in excess of $175,000, to award the contract at $187,500 or less to the lowest responsible bidder if it determines the cost estimate of the public agency was reasonable. This bill would instead authorize public projects of $60,000 or less to be performed by the employees of a public agency, authorize public projects of $200,000 or less to be let to contract by informal procedures, and require public projects of more than $200,000 to be let to contract by formal bidding procedures.</td>
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<tr>
<td>ACA 4</td>
<td>A. L. GOV.</td>
<td>Local government financing: affordable housing and public infrastructure: voter</td>
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<tr>
<td><strong>Aguiar-Curry D</strong></td>
<td><strong>4/24/2017-Referred to Coms. on L. GOV. and APPR.</strong></td>
<td><strong>Local government financing: affordable housing and public infrastructure: voter approval.</strong></td>
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<tr>
<td><strong>ACA 5 Frazier D</strong></td>
<td><strong>A. CHAPTERED</strong>&lt;br&gt;4/6/2017-Chaptered by Secretary of State-Chapter 30, Statutes of 2017</td>
<td><strong>Would add Article XIXa D to the California Constitution to require revenues derived from vehicle fees imposed under a specified chapter of the Vehicle License Fee Law to be used solely for transportation purposes, as defined. The measure would prohibit these revenues from being used for the payment of principal and interest on state transportation general obligation bonds that were authorized by the voters on or before November 8, 2016. The measure would prohibit the revenues from being used for the payment of principal and interest on state transportation general obligation bonds issued after that date unless the bond act submitted to the voters expressly authorizes that use.</strong></td>
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<tr>
<td><strong>SB 827 Wiener D</strong></td>
<td><strong>S. DEAD</strong>&lt;br&gt;4/27/2018-Failed Deadline pursuant to Rule 61(b)(5). (Last location was T. &amp; H. on 4/9/2018)**</td>
<td><strong>Would require a local government to, if requested, grant a development proponent of a transit-rich housing project a transit-rich housing bonus if that development at the time of submittal meets specified planning standards, including complying with demolition permit requirements, complying with any local inclusionary housing ordinance or, if the local government has not adopted an inclusionary housing ordinance, agreeing to provide a specified percentage of awarded units as onsite affordable housing, preparing a relocation benefits and assistance plan, complying with any locally adopted objective zoning standards, complying with any locally adopted minimum unit mix requirements, and if the development includes specified types of parcels, agreeing to replace those units and to offer units at one of 2 specified affordable rates.</strong></td>
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<tr>
<td><strong>SB 1119 Beall D</strong></td>
<td><strong>A. APPR.</strong>&lt;br&gt;6/26/2018-From committee: Do pass and re-refer to Com. on APPR. (Ayes 13. Noes 0.) (June 25). Re-referred to Com. on APPR.</td>
<td><strong>Current law requires, for recipient transit agencies whose service areas include disadvantaged communities, as specified, that those recipient transit agencies expend at least 50% of the total moneys they received as part of the Low Carbon Transit Operations Program on projects or services that meet specified requirements and benefit those disadvantaged communities. This bill would waive the above requirement if the recipient transit agencies expend the</strong></td>
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**Peninsula Corridor Joint Powers Board**<br>State Legislative Matrix as of 7/12/2018
<table>
<thead>
<tr>
<th>Bill Number</th>
<th>Description</th>
<th>Status</th>
<th>Recommendation</th>
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<tbody>
<tr>
<td>SCA 6</td>
<td>Wiener D</td>
<td>Local transportation measures: special taxes; voter approval.</td>
<td>Supported Feb. 2018</td>
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<td>S. APPR. SUSPENSE FILE 5/25/2017-May 25 hearing: Held in committee and under submission.</td>
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<td>Would require that the imposition, extension, or increase by a local government of a special tax as may otherwise be authorized by law, whether a sales or transactions and use tax, parcel tax, or other tax for the purpose of providing funding for transportation purposes be submitted to the electorate by ordinance and approved by 55% of the voters voting on the proposition. The measure would authorize an ordinance submitted to the voters for approval under these provisions to provide, as otherwise authorized by law, for the issuance of bonds payable from the revenues from the special tax.</td>
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<td>Last Amended on 6/18/2018</td>
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<tr>
<td>Proposition 6</td>
<td>Qualified for placement on the November 6, 2018 statewide ballot through the initiative process.</td>
<td></td>
<td>Recommend Oppose</td>
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<td>If approved by a majority of statewide voters, this measure would repeal SB 1, also known as the Road Repair and Accountability Act of 2017, which enacted an estimated $5.2 billion annual increase in transportation-related taxes and fees, including a $0.12 cents per gallon increase of the gasoline excise tax, a $0.20 cents per gallon increase of the diesel excise tax, a 4 percentage points increase of the diesel sales tax, an annual $25 to $100 Transportation Improvement Fee, and an annual $100 zero-emission vehicles fee.</td>
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<td>Last Amended on 5/1/2017</td>
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Total Measures: 11
Total Tracking Forms: 11
TO: Joint Powers Board

THROUGH: Jim Hartnett
      Executive Director

FROM: Seamus Murphy
      Chief Communications Officer

SUBJECT: RESOLUTION EXPRESSING ITS STRENUOUS OPPOSITION TO PROPOSITION 6, WHICH WOULD REPEAL SENATE BILL 1, ALSO KNOWN AS THE "ROAD REPAIR AND ACCOUNTABILITY ACT"

ACTION
Staff Coordinating Council recommends Board adoption of the attached resolution that expresses its strenuous opposition to Proposition 6, which would repeal Senate Bill 1, also known as the "Road Repair and Accountability Act"

SIGNIFICANCE
Opposition to Proposition 6 is consistent with the Board approved Legislative Program.

BUDGET IMPACT
There is no impact on the budget.

BACKGROUND
The passage of Proposition 6 would jeopardize the funding needed for execution of the Caltrain projects and deprive Californians of resources now available from S.B.1 for much needed improvements in transportation infrastructure and transit systems statewide.

Prepared By: Casey Fromson, 650.508.6493
                  Government and Community Affairs Director
RESOLUTION NO. 2018 -

BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA

EXPRESSING ITS STRENUEOUS OPPOSITION TO PROPOSITION 6, WHICH WOULD
REPEAL SENATE BILL 1, ALSO KNOWN AS THE "ROAD REPAIR AND ACCOUNTABILITY ACT"

* * *

WHEREAS, Caltrain provides commuter rail service along the San Francisco Peninsula from San Francisco to San Jose, with additional service to Gilroy and, in 2017, Caltrain had an average weekday ridership of over 62,000 people; and,

WHEREAS, in 2017, the California State Legislature passed, and Governor Brown signed, Senate Bill 1(S.B. 1), also known as the "Road Repair and Accountability Act," a landmark transportation investment program designed to (1) rebuild California’s transportation infrastructure by fixing neighborhood streets, freeways and bridges in communities across the State, and (2) strengthen, revitalize, and improve transit systems and congested trade and commute corridors; and,

WHEREAS, S.B. 1 will invest $5.4 billion annually over the next decade to fix California’s transportation systems and will address a backlog of repairs and upgrades, while ensuring a cleaner and more sustainable travel network for the future; and,

WHEREAS, before S.B. 1, Caltrain lacked any dedicated source of funding to support its ongoing operating and capital costs, even as the system has increasingly recovered more of its operating costs through fares and self-generated revenues; and

WHEREAS, in just this first year since S.B.1 became law, funds from the Road Repair and Accountability Act will provide Caltrain with $1 million to conduct ongoing maintenance and rehabilitation of Caltrain rail cars; $1 million for grade crossing improvements to enhance operational and schedule flexibility; and $500,000 for the Caltrain Bike Parking Program; and,

WHEREAS, Caltrain also has been awarded $164 million in funding from S.B. 1 to fully electrify Caltrain’s mainline service, provide onboard Wi-Fi and enhanced bicycle facilities, lengthen platforms to accommodate longer trains, and complete the Caltrain Business Plan; and,
WHEREAS, Proposition 6 is a statewide measure that will be placed on the November 6th, 2018 ballot asking voters to repeal S.B. 1; and,

WHEREAS, the passage of Proposition 6 would jeopardize the funding needed for execution of the Caltrain projects listed above and deprive Californians of resources now available from S.B.1 for much needed improvements in transportation infrastructure and transit systems statewide.

NOW, THEREFORE BE IT RESOLVED, that the Peninsula Corridor Joint Powers Board strenuously opposes Proposition 6, which would repeal S.B. 1, the "Road Repair and Accountability Act"; and,

BE IT FURTHER RESOLVED, that the Peninsula Corridor Joint Powers Board affirms its membership in the Coalition to Protect Local Transportation Improvements, a diverse coalition of local government, business, labor, transportation, and other organizations throughout the State that also are opposed to the repeal of S.B. 1.;

Regularly passed and adopted this 2nd day of August 2018, by the following vote:

AYES:

NOES:

ABSENT:

Chair, Peninsula Corridor Joint Powers Board

ATTEST:

J PB Secretary
AGENDA ITEM #4 (g)  
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD  
STAFF REPORT

TO: Joint Powers Board

THROUGH: Jim Hartnett  
Executive Director

FROM: Michelle Bouchard  
Chief Operating Officer, Caltrain

SUBJECT: CALTRAIN BUSINESS PLAN – MONTHLY UPDATE COVERING JULY 2018

ACTION  
Staff Coordinating Council recommends the Board of Directors (Board) receive the attached memo and PowerPoint presentation providing an update on Caltrain Business Plan activities and progress during July of 2018.

SIGNIFICANCE  
Peninsula Corridor Joint Powers Board (JPB) staff has prepared the attached memo and PowerPoint presentation describing project activities and outreach related to the Caltrain Business Plan that occurred during July of 2018. The memo also provides a narrative overview of the supporting PowerPoint presentation.

Going forward, staff will provide the JPB with written monthly memos and presentation materials on a monthly basis. These written updates will periodically be supplemented by a full presentation to the Board. Project staff will be available at all JPB meetings to answer questions and provide additional project information as requested.

BUDGET IMPACT  
There is no budget impact associated with receiving this memo.

BACKGROUND  
In 2017, the JPB secured full funding for the Peninsula Corridor Electrification Project and issued notices to proceed to its contractors for corridor electrification and purchase of Electric Multiple Unit railcars. Now that construction on this long-awaited project is underway, the agency has the opportunity to articulate a long-term business strategy for the future of the system.

The initial concept for a Caltrain “Business Plan” was brought to the Board in April of 2017. The Board reviewed a draft scope of work for the Business Plan in December of 2017 and adopted a final Business Strategy and Scope of Work in February of 2018. The Business Plan has been scoped to include long-range demand modeling, and service
and infrastructure planning, as well as organizational analysis and an assessment of Caltrain’s interface with the communities it traverses. It is an extensive planning effort that includes outreach in multiple venues. The plan will be completed in 2019.

Prepared by: Sebastian Petty, Senior Policy Advisor

650.622.7831
PROJECT UPDATE

The following is the first in a series of monthly project updates for the Caltrain Business Plan. These updates provide a high level summary of project activities and progress and are paired with an annotated presentation that reflects project materials and messaging shared with stakeholder groups during the subject month. The following “July” update covers work completed in late June and July of 2018.

ONGOING TECHNICAL WORK

The Caltrain Business Plan consulting team is fully engaged and has begun technical work on the Business Plan. Key areas of focus for the team during July have included;

- Development of project management procedures, communications standards and templates and review protocols
- Development of an integrated technical approach and schedule including specifications for the development and integration of planning tools and models
- Data collection and review of background documents
- Organizational assessment interviews

MEETINGS AND OUTREACH

The Project Partner Committee (PPC) kicked off its first meeting on June 25. This committee will meet monthly and includes technical staff representing a number of partner agencies with elevated governance, funding and/or technical relationships to the Caltrain Corridor. The role of the Project Partner Committee is to provide technical feedback into the Business Plan process and to ensure coordination and consistency of messaging with partner plans, projects and initiatives. Organizations represented in this committee include;

- City and County of San Francisco (representing the San Francisco Mayor’s Office, the Municipal Transportation Agency and the San Francisco Planning Department)
- San Francisco County Transportation Authority (SFCTA)
- Transbay Joint Powers Authority (TJPA)
- San Mateo County Transit District (SamTrans)
- San Mateo County Transportation Authority (SMCTA)
- City / County Association of Governments of San Mateo County
- Santa Clara Valley Transportation Authority (VTA)
- City of San Jose (representing the Diridon Integrated Station Concept Plan process)
- Stanford University
- Metropolitan Transportation Commission (MTC)
- California High Speed Rail Authority (CHSRA)
- California State Transportation Agency (CalSTA) and the Caltrans Division of Rail

Additional stakeholder meetings held during late June and July include

- City/County/Staff Coordinating Group (July 18)
- JPB Ad Hoc Committee (July 23)
- Local Policy Makers Group (July 26)

In addition to the above meetings, the team has been working to develop a comprehensive outreach plan for the Business Plan and has begun the process of developing a dedicated project website.
JULY OUTREACH MATERIALS

The Business Plan team has developed the attached “Month 1” slide deck to support stakeholder outreach activities in July. This deck was presented to the PPC in draft on their June 25th meeting and was subsequently refined for presentation to the CSCG and LPMG in July.

NEXT STEPS

The first six months of the Business Plan are focused on the development of a long-range service vision for the railroad accompanied by an assessment of the community-corridor interface and the Caltrain organization. The following six months will be focused on the creation of the implementation plan, including a detailed business plan and funding approach.

The Business Plan team will provide monthly updates throughout the Business Plan process similar to this one. This regular cycle of materials will be paired with more extensive, milestone-based outreach to an expanded group of stakeholders and the public.

The August project update and stakeholder meetings will cover the following topics;

- Introduction to service planning concepts and process
- Developing a 2040 Service Vision – assumptions and priorities
- Exploring the corridor-community interface
This presentation includes material about the Caltrain Business Plan developed for stakeholder outreach during the month of July, 2018. Going forward, a similar set of materials will be developed by the team each month and will be presented at various stakeholder venues or as requested. The purpose of these presentations is to provide regular updates on the Business Plan’s progress, to introduce and explain important themes and technical concepts and to solicit stakeholder feedback and input.

The theme of July’s presentation is “Thinking Big.” The presentation prompts stakeholders to consider the importance of the Caltrain system and corridor to the Bay Area and to think about the range of different issues and challenges that the Business Plan must address.
Slide 3

Crafting a 2040 Vision

- Crafting a 2040 Vision
- Framing the Challenges
- Exploring the Opportunities
- Next Steps

Slide 4

What is the Caltrain Business Plan?

**What**
Addresses the future potential of the railroad over the next 20-30 years. It will assess the benefits, impacts, and costs of different service visions, building the case for investment and a plan for implementation.

**Why**
Allows the community and stakeholders to engage in developing a more certain, achievable, financially feasible future for the railroad based on local, regional, and statewide needs.
Although the visioning component of the Business Plan is all about “thinking big” this effort is not starting with a blank slate. The questions and issues that the Business Plan will tackle are directly rooted in the plans, decisions and actions that the JPB has taken over the last decade—specifically the advancement of Caltrain’s Peninsula Corridor Electrification Program and the decision to share the corridor with High Speed Rail. These are foundational commitments that have already shaped how the corridor and service will change and grow in the future.
Caltrain runs through one of the most economically productive corridors in the world- it is the mass mobility spine of Silicon Valley. Both public and private sector stakeholders have recognized the importance of the railroad to the region’s economy and their support for the system is one of the reasons that Caltrain has been able to move forward with the Peninsula Corridor Electrification Program as a foundational step in improving the service.

Even as electrification has gone into construction, however, the continuous improvement of the Caltrain corridor remains a critical need for a region. Congestion continues to worsen and housing affordability challenges push workers to live further and further from their jobs. As the railroad contemplates its future it is challenged to think about how it can better connect housing and jobs centers, move ever-larger volumes of riders, operate seamlessly with its public and private mobility partners and provide the kind of service that makes it the mode of choice for people traveling in the corridor.
Railroads are complicated and costly systems. Substantially changing or expanding an active railroad is a significant undertaking that can take decades to execute and will create impacts and ripple effects across multiple geographies and scales:

- The Caltrain system effects the individual lives of the more than 60,000 customers who ride the train every day. Our service allows our riders to live, work and connect across a distributed region. How effectively we design that service and how well we deliver it has a tangible impact on the daily, lived experience of our customers.

- The Caltrain system also runs through 20 different local communities. Each of these cities and towns is distinct and each has its own priorities, projects and plans for growth. At the same time, all of these jurisdictions are part of a single corridor and share a common set interfaces and issues with the railroad.

- At both the regional and state-wide scales, the Caltrain corridor is one link within a large and growing network of rail projects and transit connections. In planning for its own evolution Caltrain must also consider how its growth can support the overall development of a seamless, integrated state and regional network.

- Finally, Caltrain is part of a national and global passenger rail and transport industry. The trends, technologies and regulations that drive these industries have a direct impact on how Caltrain designs projects, operates its system and invests its resources. As Caltrain contemplates large scale change there is much that the system can learn from its national and international peers.
The Caltrain corridor has been an active railroad for more than 150 years and consequently it has developed incrementally in a way that is both varied and constrained.

Between San Francisco and San Jose the corridor is primarily a two-track system with some limited four-track segments. These tracks run across bridges and through tunnels as well as across 42 at-grade crossings. The Peninsula Corridor Joint Powers Board controls the corridor between San Francisco and San Jose but the width of the corridor varies significantly and there are also variations and exceptions with regard to ownership—particularly at stations. Caltrain also shares its corridor with a number of tenant systems including ACE and Capitol Corridor as well as freight. South of San Jose, Caltrain operates on a primarily single-track corridor owned by Union Pacific where it has limited operating rights.
The Caltrain corridor is intertwined with the communities it traverses. The railroad abuts homes and businesses along its length and it runs directly through the downtowns of many corridor cities. The close corridor-community interface provides many benefits and opportunities including mobility choices, regional connectivity and a foundation for land use diversity and intensification. At the same time, the physical reality of an active rail corridor creates impacts to adjacent properties and challenges at at-grade crossings.

The specific geography of the Caltrain corridor matters. Planning for change on an active railroad running through a historic and varied corridor is inherently challenging and will require both creativity and compromise.

Slide 11

Exploring the Opportunities

Crafting a 2040 Vision  Framing the Challenges  Exploring the Opportunities  Next Steps
Caltrain has experienced extraordinary ridership growth over the last twenty years—tracking the larger pattern of economic growth in the corridor as a whole. While this rapid growth has put pressure on the Caltrain system it has also been a tremendous financial boon to the service, allowing Caltrain to become more financially self-sufficient and making the case for investment in the corridor.

As its ridership has grown, Caltrain has quietly become one of the most intensively used rail systems in the United States. The combination of a rapidly growing regional economy and the unique, multi-nodal geography of the Caltrain corridor mean the system’s infrastructure is being used more efficiently than ever before. By most measures Caltrain is now one of the United States’ major passenger railroads.
The Peninsula Corridor Electrification Project is underway and is scheduled to be operational in 2022. In addition to providing immediate service and capacity benefits, electrification will be foundational to the long term growth and evolution of the corridor.

Planning for the future is already underway. State-level documents like the 2018 High Speed Rail Business Plan and 2018 State Rail Plan envision a corridor that is shared by both High Speed Rail and Caltrain and supports levels of service of 10 or more trains per peak hour per direction as part of an integrated, statewide rail network. Similarly, the Caltrain Corridor Vision Plan, published by SPUR in 2017, provides a vision of how a higher capacity, electrified Caltrain corridor could help meet the region’s growing mobility needs.

Caltrain lacks a dedicated source of funding. As the railroad transforms itself into an electrified system, Caltrain has an opportunity to address this challenge. The present moment offers a unique confluence of increased ridership, private-sector interest, and state investment in the corridor. Through the framework of the Caltrain Business Plan, we have the opportunity to plan for the long term growth of the system, identify benefits and costs and build the case for sustained investment in the corridor.
The Business Plan is a major effort that will be supported by significant analytical work and stakeholder engagement. The technical work of the Business Plan is divided into four major “technical tracks”.

The Business Plan process will include continuous engagement with corridor stakeholders including monthly and quarterly updates to a variety of groups. Additionally, the Business Plan will engage in a variety of outreach activities to the general public both in-person at meetings and events and through a dedicated webpage and social media channels.
As part of the Business Plan we are asking corridor stakeholders to “think big” with us. The Business Plan will provide an opportunity for stakeholders to learn more about their railroad and to participate in planning for its future.
The first six months of the Business Plan process will be focused on developing a long range “Vision” for the corridor in 2040. Staff will then ask the Board to provide direction on the 2040 Service Vision. During the second half of the Business Plan, the team will focus on developing a more detailed business plan document along with a funding and implementation program.
The Business Plan team will develop project updates like this one on a monthly basis. The topics for Month’s 2 and 3 may shift slightly but will generally focus on service planning, defining the corridor-community interface, developing a travel market assessment for the corridor and exploring the economic and community benefits of the Caltrain system.
TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Michelle Bouchard
Chief Operating Officer, Rail

SUBJECT: CALTRAIN FARE STUDY: RECEIVE DRAFT FARE STUDY PHASE 1 REPORT AND MEANS-BASED PROGRAM UPDATE

ACTION
Staff Coordinating Council recommends the Board receive the attached memo regarding the planning efforts underway for the Caltrain Fare Study and the regional means-based fare program, and also receive the Caltrain Fare Study Draft Phase 1 Report for public review.

SIGNIFICANCE
The attached staff memo provides an overview of the Draft Caltrain Fare Study Phase 1 Report, which has been released for public review. It also includes an update on the regional means-based fare pilot program, an effort being led by the Metropolitan Transportation Commission and large transit operators in the region.

BUDGET IMPACT
There is no budget impact associated with receiving this memo.

BACKGROUND
The JPB is conducting a Fare Study to identify potential opportunities to maximize revenue, enhance ridership, and safeguard social and geographic equity. There have been periodic discussions with the JPB since August 2016 to seek feedback and receive input on the Fare Study. It was discussed that the Fare Study would be conducted in phases and serve to provide updated data and analysis to inform and support potential future fare changes at Caltrain. The first phase of the Fare Study commenced in spring 2017 and is largely complete. In May 2018, staff provided a presentation to the JPB with an update on the study's progress, including key findings from Phase 1 and recommended next steps for Phase 2, which should commence in summer 2018.

Prepared by: Elizabeth Scanlon, Director of Planning 650.295.6867
Project Manager: Melissa Jones, Senior Planner
Caltrain Fare Study Phase 1 Report
The purpose of the Fare Study is to provide updated data and analysis to inform potential future fare changes and support the development of fare policy at Caltrain. The agency last completed a comprehensive Fare Study in 2001, and much has changed since then for Caltrain and the region. The effort to provide an updated Fare Study for the agency commenced in spring 2017 and is being conducted in phases, with Phase 1 nearly complete. Phase 2 is expected to commence in summer 2018.

The Draft Caltrain Fare Study Phase 1 Report shares the detailed technical findings and recommendations from this first phase of work, as well as next steps for Phase 2 of the study. The report includes an Executive Summary that summarizes the key findings and recommendations from Phase 1, and it is excerpted in full in this memo. The other chapters in the report include the Purpose and Need for the Fare Study, Existing Conditions, Peer Comparison, Goals and Performance Measures, Caltrain Fare Elasticity, and Recommendations and Next Steps.

The draft Executive Summary can be found on the following pages of this memo. The full Public Review Draft of the Caltrain Fare Study Phase 1 Report can be found on the Caltrain website here: http://www.caltrain.com/projectsplans/Plans/FareStudy.html.

The report will be available for public review from August 2, 2018 to October 2, 2018. Members of the public can submit comments on the website or email CaltrainPlanning@samtrans.com. After the public review period, the report will be revised as needed and a final draft will be prepared for the JPB to formally receive.

Regional Means-Based Fare Pilot Program:
The Metropolitan Transportation Commission (MTC) has been leading an effort to create a regional means-based fare pilot program with large transit operators in the region. This program would provide a fare discount for low-income transit riders at participating agencies. MTC staff has been working in partnership with staff from the region’s large transit operators, including the JPB, to define and develop the program.

On May 3, 2018, an update on this program was provided to the JPB. Since then, the full Commission approved a Means-Based Fare Pilot Program Framework on May 23, 2018. The potential program participants include BART, Caltrain, Golden Gate Transit (bus and ferry), and San Francisco Muni, with program participation subject to approval from each transit operator board.

Per the approved Pilot Program Framework, the program components are:
• It will be a 12-18 month pilot program, to be implemented on Clipper through a discount coupon approach.
• The discount amount offered to eligible adults will be a minimum of 20 percent per trip discount on the adult Clipper Card fare.
• Adults earning less than 200 percent of the Federal Poverty Level annually will be eligible for participating in the program.
• The program will be centrally administered on behalf of all participating agencies, including the important component of determining program participation eligibility.
• It is anticipated that about $11 million in funding will be allocated by MTC each year to cover administrative costs and defray up to 50 percent of operators’ revenue losses from the new means-based fare program.
• Throughout the pilot program, data will be gathered and used to evaluate the success of the program and its potential as a permanent program in the region.

JPB staff continues to work with other transit operator staff and MTC staff to develop and refine the program details as it moves towards implementation. In the coming months, staff intends to return to the JPB with to provide an additional update on the program, including details on program administration and potential Caltrain costs, and to seek Board direction on Caltrain’s potential participation in the program.

If the JPB supports the agency’s participation in the pilot program, it will be necessary to complete the process of changing the Codified Tariff to add the new means-based fare discount for eligible persons, including a Title VI analysis. Following Board approval of the Title VI analysis and the change to the Codified Tariff, the Board will then need to authorize a formal agreement with MTC for program participation. Pending all of the agencies’ necessary approvals, the pilot program is currently scheduled to begin in the region in late summer 2019.
1 Executive Summary

The following report presents the findings from Phase 1 of the Caltrain Fare Study. It was produced by the Peninsula Corridor Joint Powers Board (JPB), the entity that oversees Caltrain commuter rail service. The agency last completed a comprehensive Fare Study in 2001, and much has changed since then for Caltrain and the region. Updated data and analysis are needed to understand how potential fare changes could affect ridership, revenue, and equity for Caltrain. The study is being conducted in phases, with the first phase of work presented in this report focused on understanding existing conditions and the price elasticity of demand for Caltrain. Phase 1 of the Fare Study was conducted between spring of 2017 and spring of 2018. It is anticipated that the findings from the Fare Study will serve staff, members of the JPB and the Caltrain Citizens Advisory Committee (CAC), and members of the public.

This Executive Summary provides an overview of this report. It includes key highlights from each chapter of the report, including the Purpose and Need, Existing Conditions, Peer agency Fare Comparison, Goals and Performance Metrics, and Caltrain Fare Elasticity. Then, it presents key policy questions that arise from the Phase 1 findings, followed by recommendations for the agency and suggestions for Phase 2 of the Fare Study.

1.1 Purpose and Need for the Caltrain Fare Study

Chapter 2 presents the purpose and need for the Caltrain Fare Study, which is summarized here. The fare products currently offered by Caltrain were developed at a time when attracting ridership was a primary goal of the agency. Caltrain does not currently have a Board-adopted fare policy, and it has not established formal goals and principles to guide its price-related decision-making. Historically, Caltrain has had a practice of increasing its fares about every two years with limited in-depth analysis on the relationship between ridership and fare elasticities; additionally, many of these fare changes were adopted in response to forecasted budget shortfalls. Meanwhile, ridership and resulting fare revenue have continued to grow, more than doubling since 2005. In light of all this, the agency has sought to conduct a study that will support well-informed decisions regarding fares and fare products and help shape policy that better suits the needs of the agency. The objectives for the Fare Study include:

- Identify potential opportunities to maximize revenue;
- Enhance ridership, and
- Safeguard social and geographic equity.

The purpose of the first phase of work has been to provide data and analysis to better understand Caltrain’s current fare products, compare Caltrain fares to peer agencies fares, and analyze how fare changes could impact ridership, revenue, and equity for Caltrain. Throughout the process of Phase 1, JPB staff has presented updates to the CAC and JPB to provide information and solicit feedback on the technical analysis and findings.
1.2 Existing Conditions
Chapter 3 presents a detailed report on existing conditions to provide an updated, foundational understanding of Caltrain’s fares and ridership today. Some of the key findings from this research are described below.

Fare Product Usage
Caltrain’s fare products are used with varying degrees of frequency by riders, according to Caltrain’s 2016 Triennial Survey. Monthly passes purchased on Clipper Cards were the most common fare product used by surveyed riders, with Go Passes the second most common, together accounting for 56 percent of Caltrain riders.

Fare Revenue
Over the past ten years, Caltrain ridership has grown dramatically, from about 25,000 weekday riders in 2005 to about 64,000 weekday riders in 2018, which has increased the total fare revenue for the agency. Figure 1 shows this growth in total annual farebox revenue by fare product over the last ten years. In 2016, 34 percent of fare revenue was from monthly pass purchases, and 30 percent was from one-way ticket purchases, comprising the two largest sales categories and more than half of the annual fare revenue. Go Pass accounted for about 15 percent of the total fare revenue in 2016.

Analysis in Chapter 3 also demonstrates that there are large differences between the revenue earned per passenger and per passenger mile for each fare product. For fully priced products in the month of October 2016, the analysis shows that revenue per passenger and the revenue per passenger mile were highest for one-way passes purchased on ticket vending machines (TVM) and day passes, while they were lowest for Go Pass.

Figure 1: Total Annual Farebox Revenue by Fare Product, 2007 - 2016

Note: One-way includes both Clipper one-way fare and paper tickets.
Farebox Recovery Ratio

Today, Caltrain has one of the highest farebox recovery ratios in the country. Over the last ten years, Caltrain ridership has grown substantially, which has increased the total fare revenue brought in for the agency. During the same period, Caltrain service has not changed substantially, and operational costs have largely remained stable. As a result of this revenue growth and stable operating costs, Caltrain’s farebox recovery ratio has increased over the last decade and is currently estimated to be about 70 percent.

Rider Demographics

Similar to other commuter rail lines in the country, Caltrain’s ridership is predominantly composed of individuals with higher annual household incomes. According to the 2016 Triennial Survey, only 16 percent of Caltrain passengers’ households earned less than $50,000 per year; 24 percent earned between $50,000 and $100,000; 22 percent earned between $100,000 and $150,000; 15 percent earn between $150,000 and $200,000; and 23 percent earned over $200,000. Since 2010, the percentage of Caltrain riders in the lowest income brackets has decreased, while the percentage of riders in the highest income brackets has increased.

With regards to race and ethnicity, three-quarters of Caltrain riders identified as white or Asian, according to the 2016 Triennial Survey. Additionally, since 2010, the percentage of white passengers has decreased, replaced primarily by growth in the percentage of Asian passengers. Other race and ethnicity groups did not change substantially over this period.

The type of fare product used by riders varies somewhat by annual household income, according to the 2016 Triennial Survey. Compared to all riders, lower income riders were more likely to use a single-fare product and less likely to have a monthly pass or Go Pass, regardless of how often they ride Caltrain. Lower income riders were also less likely to use a Clipper card. As annual household income increased, usage of high-value products like the monthly pass or Go Pass generally increased. Above annual household incomes of $50,000, there was little variation in the distribution of fare product usage across the income groups. A lower proportion of Go Pass users compared with all Caltrain riders had incomes under $50,000 per year.

1.3 Peer Agency Fare Comparison

Chapter 4 presents a peer agency fare comparison to better understand how Caltrain’s fares relate to its other transit and commuter rail agencies nationally, and some of the highlights are described below. The comparison included a study of 19 different transit and commuter rail agencies, including Caltrain.

Caltrain’s fares were found to be about average compared to peer agencies. A majority of the peer systems studied use a zone-based fare structure. Caltrain was found to have the highest farebox recovery ratio of all the commuter rail systems studied. This is attributed to the recent growth in ridership and revenue while service and costs have remained relatively flat. The research also revealed that peak/off peak fares are not common in the United States. Means-based fare programs are growing on the West Coast, and transit agencies partner with external agencies to do the means-testing. Peer systems’ reported price elasticities ranged from -0.13 to -0.22. Peer
agency staff strongly endorsed frequent, planned, and predictable fare changes, improve budgeting and planning processes; reduce pressure on the Board; and help manage fare expectations with the public.

1.4 Goals and Performance Measures

To address the primary objectives for the Caltrain Fare Study, a set of performance goals and metrics have been developed and are presented in Table 1 below, with additional details in Chapter 5. These goals and performance measures have been identified and discussed with the Caltrain Board of Directors in relation to potential fare changes, but not adopted as official policy.

Table 1: Goals and Performance Metrics

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<tr>
<th>Goal</th>
<th>Metrics</th>
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<tr>
<td>Enhance Ridership</td>
<td>- Average weekday ridership</td>
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<td></td>
<td>- Total annual ridership</td>
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<tr>
<td>Increase Operating Revenue</td>
<td>- Total annual revenue</td>
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<td>- Total annual revenue per passenger</td>
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<tr>
<td>Safeguard Social and</td>
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<tr>
<td>Geographic Equity</td>
<td>- Percentage of low income riders projected vs. percentage of low</td>
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<td></td>
<td>income riders in Caltrain-serving counties</td>
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<td></td>
<td>- Caltrain’s average fare per track mile vs. other transit agencies’</td>
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<td>average fare per track mile</td>
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1.5 Caltrain Fare Elasticity

When the previous Caltrain Fare Study was conducted back in 2001, the results indicated that Caltrain’s ridership demand was elastic, or highly influenced by price, and any fare increase was expected to result in ridership decline. Since then, Caltrain introduced Baby Bullet express train service resulting in substantial growth in ridership, so one key objective for the Caltrain Fare Study was to determine the price elasticity of demand for Caltrain’s current ridership. Chapter 6 presents the detailed results of this important analysis, and highlights are presented below.

Using data from an extensive rider survey, a Fare Elasticity Simulator was built by the consultant team for Caltrain. This is an important tool can be used to test potential fare changes to existing, regular fare products and to analyze potential ridership, revenue, and equity outcomes. This tool allows more in-depth technical analysis around fare pricing.

In addition to allowing staff to test potential fare changes, the Fare Elasticity Simulator also allowed the agency to determine that the current price elasticity of demand for Caltrain is inelastic. This means that current passengers are not likely to drastically change their demand, or use, for Caltrain service based on fare changes. The price elasticity of demand for the overall system was estimated to be -0.2, which means that with a price increase of 10 percent, Caltrain could expect to lose about 2 percent of its ridership. Generally, raising fares are expected to lead to substantial increases in revenue for the agency, with minor ridership declines among existing riders and very slight declines for social and geographic equity indicators.

Caltrain’s higher income passengers were found to have more elastic demand compared to lower income passengers. In other words, Caltrain’s higher income passengers are generally more price
sensitive regarding Caltrain fares than lower income passengers. This means that increased Caltrain fare prices are more likely to be absorbed by passengers with the least means to pay for higher fares.

### 1.6 Policy Considerations from Phase 1 of the Fare Study

The findings from Phase 1 of the Fare Study lead to important policy questions for the agency, which are described below.

- **First,** the existing conditions research and analysis on Caltrain’s fare revenue, rider demographics, and fare product usage patterns indicates that there is an equity question with Caltrain’s current fare products and pricing. Specifically, there are large differences between the fare products regarding how much revenue they earn per passenger and per passenger mile, and there are also differences regarding which fare products are more likely to be used by passengers in different income groups. Revenue per passenger and revenue per passenger mile are highest for one-way TVM and day pass products, two products that data shows are more likely to be used by lower income riders. In contrast, revenue per passenger and revenue per passenger mile are lowest for Go Pass, which data shows is more likely to be used by higher income riders. Ultimately, this means that Caltrain derives more revenue per passenger and per passenger mile from products that are most likely to be used by lower income riders, while its higher income riders are more likely to use products that earn Caltrain less revenue per passenger and per passenger mile. Recognizing that equity is one of many policy priorities the agency must consider, should the agency strive for greater equity outcomes in its fare-related decisions? What strategies could be deployed to effectively balance equity within Caltrain’s current fare products, pricing, and programs?

- **Second,** based on the findings from the Fare Elasticity Simulator, additional policy questions for Caltrain arise. Because the Fare Elasticity Simulator shows that Caltrain can raise its prices to gain substantial revenue returns without losing large portions of its current ridership, one could easily conclude that the agency could solve fiscal difficulties by maximizing its fare prices and increasing total annual farebox revenue. As a public transportation provider without a permanent dedicated source of funding, this could be a viable option for Caltrain, especially in the face of potential budget deficits. At the same time, Caltrain provides a critical transportation service for the public in three counties in the Bay Area, so the agency must consider the current ridership’s inelastic demand for Caltrain service from another angle: how much revenue should Caltrain generate from the riding public? Is it fair to continue increasing Caltrain fares at a time when many current passengers are willing to pay higher fares? What are the broader implications, for the agency and for the public, of fare increases? How can the agency balance tradeoffs between the three Fare Study goals of increasing revenue, enhancing ridership, and safeguarding social and geographic equity?

- **The third policy question builds on findings from both the existing conditions research and the Fare Elasticity Simulator results.** As described above, there are discrepancies in the fare product usage patterns among different rider income groups, with Caltrain’s lower income riders more likely to use fare products that are priced the highest and earn
the most revenue per passenger and per passenger mile for the agency. At the same time, the Fare Elasticity Simulator results showed that these same lower income riders have low demand inelasticity, meaning that they are more likely to absorb price increases so they can continue riding Caltrain. This raises concerns related to the Fare Study’s goal of safeguarding social equity. It leads to another policy question: how much revenue the agency should be generating for its fares, and from which fares?

1.7 Key Recommendations and Next Steps
Building on the research and analysis from the Phase 1 tasks and the resulting policy questions, Chapter 7 presents key recommendations from Phase 1 of the Fare Study and suggests next steps for Phase 2 of the Fare Study. A summary of the chapter is presented below.

Key Recommendations

- **Balance Goals for Revenue, Ridership, and Equity.** The findings from Phase 1 of the Fare Study illuminate the challenge and difficulty of achieving all three of those goals simultaneously. In addition, Phase 1 results indicated that Caltrain’s current ridership has low price elasticity of demand for the commuter rail service, but this result must be weighed carefully in light of equity goals. In other words, just because the agency *can* increase fares does not mean it *should* do so. Instead, the agency should consider and weigh the broader picture of revenue, ridership, and equity impacts and tradeoffs of potential fare changes before adopting and implementing them, striving to balance gains towards all three of the goals.

- **Adopt a Formal Foundational Fare Policy.** The results from Phase 1 suggest that the agency would benefit from a Board-adopted fare policy to establish principles and goals that would underlie and guide the agency’s pricing-related decisions. The policy would allow the agency to prioritize the relative importance of the goals from the Fare Study, including enhancing ridership, increasing revenue, and safeguarding social and geographic equity; this would aid staff and the Board by guiding decision-making regarding potential fare changes. The policy could also evaluate and guide the process for changing fares, potentially including the frequency of fare increases.

- **Seek Opportunities to Address Current Fare Equity Question.** Another key finding from Phase 1 of the Fare Study is that there is currently a question about equity in the agency’s fare system, and it is recommended that the JPB consider opportunities to address this. Potential options could include changing the pricing of current products to ensure that products that are more likely to be used by higher income riders contribute more revenue to the farebox. Another option to consider is participation in the regional means-based fare program that is currently being developed by the Metropolitan Transportation Commission and regional transit operators, to provide a fare discount to qualified low income individuals at participating transit agencies.

- **Use Fare Elasticity Simulator to Analyze Potential Fare Changes.** The Fare Elasticity Simulator provides the agency with an important tool to help analyze impacts of potential fare changes. It is recommended that the agency use the Fare Elasticity Simulator when
considering potential future fare changes to existing, regular fare products, so that it can be better informed regarding potential impacts to ridership, revenue, and equity. In particular, because Caltrain’s current ridership demand is inelastic, the raising of fare prices is expected to generally lead to an increase in fare revenue for the agency. At the same time, increased fares are also expected to have some negative ridership and equity impacts; in general, these are not forecasted to be large but nonetheless should be considered as potential adverse impacts. Incorporating the use of the Fare Elasticity Simulator into the agency’s process for considering potential fare changes can help the agency weigh tradeoffs and potential impacts, ultimately leading to more informed decision-making regarding fare changes.

- Delay Implementation of Off-Peak Fare Discount. It is recommended that the agency defer pursuing an off-peak fare discount at this time. Offering an off-peak discount may increase off-peak trips on the Caltrain system, especially among lower income passengers, but it is expected to do relatively little to reduce peak period trips and alleviate current capacity issues on board during the peak period. An off-peak discount is expected to result in lower revenue earnings, an implication that should be carefully considered, as well. Rather, this option is suggested to be examined only after the agency is able to examine more off-peak train service.

**Near-term Next Steps**

Building on the key recommendations discussed above, the following tasks are proposed for Caltrain to pursue in the near term.

1. Conduct Phase 2 of the Fare Study, which should include the following tasks.
   
   a. Develop and adopt a formal fare policy for Caltrain to establish the principles, goals, and procedures that will underlie and guide the agency’s pricing-related decisions. This task should include research into how other agencies set or change fare policy. Then, building on those best practices, a draft policy should be crafted and eventually adopted by the Caltrain Board of Directors.

   b. Conduct a detailed study of Caltrain’s deep discount program, Go Pass, to better understand the program and inform potential changes to the program in the near future. While Phase 1 included some initial findings related to Go Pass, including some of its benefits for the agency, additional analysis is needed to fully understand the costs and benefits of the program for the agency, as well as to inform potential changes to the program, including its structure, pricing, requirements, and administration.

   c. Conduct a Parking Study to inform potential changes to Caltrain’s parking program in the near future. Similar to the Go Pass program, Phase 1 of the Fare Study presented some initial findings related to the agency’s parking program, but a broader study of its parking program is needed. It is recommended that this task explore parking strategies and pricing scenarios for Caltrain’s parking program, such as demand-based pricing.
2. Continue participating in development of the regional means-based fare program with MTC and other transit operators. It is strongly recommended that the agency continue to consider participating in the potential regional means-based fare program. JPB staff should continue to participate in the regional conversations with MTC and other operators, while also analyzing tradeoffs for Caltrain’s potential participation, including financial, administrative, and equity considerations. Staff should return to the Caltrain Board of Directors with additional information when the program is further along in development to discuss the agency’s potential participation. If the Board agrees to participate in the program, the discount fare program must be formally adopted and implemented as a fare change to Caltrain’s fare system, including Title VI analysis and public outreach processes.

**Longer-term Next Steps**

A long-term, comprehensive plan for Caltrain is currently under development with the Caltrain Business Plan initiative, and other planning studies are being coordinated with the scope of that effort. It is recommended that several longer-term issues related to fares and fare policy be advanced within the context of the Caltrain Business Plan. This includes studying Caltrain’s current zone-based fare structure in contrast to a station-to-station structure; innovative fare products and pricing, such as the off-peak discount; integration with regional and statewide ticketing innovations; and technological improvements to fares (advanced mobile ticketing, integrated ticketing with parking and access programs, etc.). These are farther-reaching policy considerations that must be aligned with the scope and outcomes of the Caltrain Business Plan, so at this time, it is recommended that the agency deferring these items to a later time.
TO: Joint Powers Board

THROUGH: Jim Hartnett  
Executive Director

FROM: Derek Hansel  Michelle Bouchard  
Chief Financial Officer  Chief Operating Officer, Rail

SUBJECT: DISPOSITION OF SERVICE SUPPORT VEHICLES AND EQUIPMENT

ACTION  
Staff Coordinating Council recommends the Board authorize the Executive Director, or his designee, to dispose of the following vehicles, in compliance with the Peninsula Corridor Joint Powers Board’s (JPB) procurement policy:

- One (1) 1998 Wood Chipper and One (1) 1996 Backhoe
- One (1) 2000 Ford 550 Truck and One (1) 2000 Ford 555 Truck
- One (1) 2002 Ford 150 Truck and One (1) 2003 Dodge Stratus
- One (1) 2004 Ford F550 4x2 Hi-rail Truck
- One (1) 2005 Ford 500 Truck and One (1) 2006 Dodge Dakota Pickup Truck

SIGNIFICANCE  
The proposed action will implement the JPB’s policy to routinely dispose of surplus vehicles and equipment that are no longer viable for service through either sealed bid, public auction, sale, negotiation, transfer to another public agency, or by discarding as scrap. The vehicles and equipment included in the proposed action will be disposed of by public auction.

BUDGET IMPACT  
The vehicles and equipment were purchased with State Transit Assistance funds and JPB Member Agency contributions. Proceeds from the auction, net of any disposal costs, will be made available for use in funding future capital projects.

BACKGROUND  
The JPB purchased the vehicles to provide staff with general transportation and to perform work on the Caltrain right of way. The vehicles have reached the end of their useful lives.

Procurement Administrator II: Brian Geiger 650.508.7973
Project Manager: Henry Flores, Deputy Director, Vehicle Maintenance 408.793.5441
TO: Joint Powers Board
THROUGH: Jim Hartnett
Executive Director
FROM: Cindy M. Gumpal
JPB Secretary
SUBJECT: APPOINTMENT OF CITIZENS ADVISORY COMMITTEE REPRESENTATIVES

ACTION
Staff Coordinating Council recommends the Board make the following appointments to the Citizens Advisory Committee (CAC):

- Cat Chang, Representing San Francisco County, to a term ending June 30, 2021
- Kevin Burke, Representing San Mateo County, to a term ending June 30, 2021
- Larry Klein, Representing Santa Clara County, to a term ending June 30, 2021

SIGNIFICANCE
The CAC Bylaws state:

1. Article 1 - Membership, Section 1: As prescribed by the Peninsula Corridor Joint Powers Board (“JPB” or “Board”), the Citizens Advisory Committee (“CAC” or “Committee”) shall consist of nine (9) members, three appointed from each constituent county (San Francisco County, San Mateo County, Santa Clara County). Each county will select its county committee members and the JPB will affirm these appointments. CAC members should reflect the demographics of Caltrain riders. The Citizens Advisory Committee shall act in an advisory capacity to the JPB. Its activities shall include seeking the views of various groups of users and potential users of Caltrain and ancillary transit facilities, and to develop proposals and recommendations for meeting the needs of these various groups; reviewing and commenting on staff proposals and actions as requested by the JPB; and assisting the JPB in any matter which the Board may deem appropriate.

2. Article 1 - Membership, Section 2: CAC members shall serve three (3) year terms.

BUDGET IMPACT
There is no impact on the budget.

BACKGROUND
The CAC was established as a JPB advisory group by Resolution No. 1992-28, dated June 3, 1992. The CAC serves as a forum for conveying community information, ideas and comments to the Board. The Board adopted a set of Bylaws under Resolution No. 2002-13, dated May 2, 2002, to formalize the rules of procedure governing the manner in which the CAC functions.
AGENDA ITEM #4 (k)
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board
THROUGH: Jim Hartnett
Executive Director
FROM: John Funghi
Chief Officer, Caltrain Modernization Program

SUBJECT: ADDENDUM #4 TO THE 2015 PENINSULA CORRIDOR ELECTRIFICATION PROJECT FINAL ENVIRONMENTAL IMPACT REPORT

ACTION
Staff Coordinating Council recommends the Board:

1. Adopt Addendum #4 to the 2015 Peninsula Corridor Electrification Project (PCEP) Final Environmental Impact Report (FEIR)
2. Approve inclusion of new potential site for Paralleling Station 2 for the PCEP

SIGNIFICANCE
The JPB, per Resolution No. 2015-03, certified the PCEP FEIR on January 8, 2015. Since certification of the FEIR, staff has identified one new potential site for Paralleling Station 2 (PS2), which is denoted as “Variant A” (approximately mile post 5.1), in San Francisco. A new location (PS 2 Variant A) was needed because the original location included in the FEIR is no longer viable. The original PS2 location is located on private property which the JPB is unable to acquire.

Because PS 2 Variant A was not included in the FEIR, staff and the consultant for the JPB, ICF, have completed Addendum #4 to the PCEP FEIR. Addendum #4 did not identify any issues relative to the addition of proposed PS2 Variant A that would require preparation of a supplemental or subsequent Environmental Impact Report.

Adopting Addendum #4 and approving the inclusion of the additional paralleling station site will modify the PCEP project to reflect the PS2 Variant A location.

BUDGET IMPACT
As a result of this action, there is no increase in the PCEP overall project cost estimate that was presented to the board in November 2014.
BACKGROUND

Under CEQA, an addendum to an EIR is needed if minor technical changes or modifications to a proposed project occur (CEQA Guidelines Section 15164). An addendum is appropriate only if these minor technical changes or modifications do not result in any new significant impacts or a substantial increase in the severity of previously identified significant impacts. An addendum does not need to be circulated for public review (CEQA Guidelines Section 15164(c)); however, an addendum is to be considered along with the FEIR by the decision-making body prior to making a decision on a project (CEQA Guidelines Section 15164(d)).

PS2 Variant A is located at approximately Mile Post 5.1, in the Bayshore Caltrain parking lot in San Francisco. With PS2 Variant A, the Bayshore Caltrain parking lot would be reconfigured and pedestrian, shuttle and roadway modifications along Tunnel Avenue would be implemented. Modifications involve implementation of signage and curb painting to designate two new shuttle bus stops on the northbound and southbound lanes and striping of a new crosswalk from the northbound shuttle bus stop to the Bayshore Station. Figure 1 in Addendum #4 to the FEIR shows the location of PS2 Variant A, the reconfigured parking lot, and the associated modifications.

Staff and the JPB’s environmental consultant, ICF, have prepared the attached Addendum #4 to the PCEP FEIR (State Clearinghouse No. 2013012079) in accordance with CEQA Guidelines Section 15164 and have identified no new or substantially more severe or significant impacts of the proposed PS2 Variant A compared with those identified and evaluated in the FEIR. Mitigation measures identified in the FEIR would be applied to PS2 Variant A, to reduce or avoid significant impacts. With the application of these previously-identified mitigation measures, no new significant impacts or substantial increases in the severity of previously identified impacts requiring revisions to the FEIR would occur. No new mitigation measures are required for the adoption and implementation of the proposed PS2 Variant A. All relevant mitigation measures from the FEIR would apply to PS2 Variant A, as applicable.

Enclosures provided:

1. Addendum #4 to the FEIR

Prepared By:

Liz Antin, Senior Planner 650.295.6851
Stacy Cocke, Deputy Director, Program Mgmt & Env. Compliance 650.508.6207
The Peninsula Corridor Joint Power Board (JPB) certified the Peninsula Corridor Electrification Project (PCEP) Environmental Impact Report (EIR) on January 8, 2015. Since certification of the Final EIR, the JPB has identified one new potential site for Paralleling Station 2 (PS2). The environmental effects of the new PS2 Variant A compared with the environmental effects of the PS2 site evaluated in the certified 2015 Final EIR are examined in this addendum.

Under the California Environmental Quality Act (CEQA), an addendum to an EIR is needed if minor technical changes or modifications to a proposed project occur (CEQA Guidelines Section 15164). An addendum is appropriate only if these minor technical changes or modifications do not result in any new significant impacts or a substantial increase in the severity of previously identified significant impacts. An addendum does not need to be circulated for public review (CEQA Guidelines Section 15164(c)); however, an addendum is to be considered along with the Final EIR by the decision-making body prior to making a decision on a project (CEQA Guidelines Section 15164(d)). This addendum to the PCEP Final EIR (State Clearinghouse No. 2013012079) has been prepared in accordance with CEQA Guidelines Section 15164.

Project Background and Supplemental Environmental Review

In 2015, the JPB certified the Final EIR for the PCEP. The Proposed Project would require the installation of 130 to 140 single-track miles of overhead contact system (OCS) for the distribution of electrical power to the electric rolling stock. The OCS would be powered from a 25 kilovolt (kV), 60 Hertz (Hz), single-phase, alternating current (AC) supply system consisting of two traction power substations (TPSs), one switching station (SWS), and seven paralleling stations (PSs). The Final EIR evaluated environmental impacts associated with the four options for the site of the northern TPS (TPS1 in South San Francisco) and three options for the site of the southern TPS (TPS2 in San Jose). In addition, the Final EIR evaluated environmental impacts associated with one switching station (SWS1) (with two site location options) and seven paralleling stations (PS1 through PS7) at a spacing of approximately 5 miles. Two options were evaluated for the PS3 and PS6 sites and three options were evaluated for the PS4, PS5, and PS7 sites.

Since certification of the Final EIR, the JPB has proposed an alternative location for PS2 (Variant A). As the PS2 design progressed, the acquisition of private property was identified in order to accommodate the PS2 foundation footprint. The relocation of PS2 was required when the City and County of San Francisco (City) did not support JPB utilizing the City’s condemnation authority for the additional private property acquisition. PS2 Variant A would be located at approximately Mile Post 5.1, east of the Caltrain tracks and west of Tunnel Avenue in San Francisco on a parcel of land that is currently used as a surface parking lot, providing 38 parking spaces for the Caltrain Bayshore Station. The 0.14 acre site would be located on the northern portion of the parking lot on land owned by JPB within the Caltrain
right-of-way, and would require the elimination of 19 parking spaces from the Bayshore Station parking lot. A new driveway would be constructed to the Bayshore Station parking lot approximately 140 feet south of the existing driveway, and a new landscaped perimeter island would provide a buffer between the sidewalk and the driveway. Access to PS2 Variant A for construction and operation would be provided via Tunnel Avenue. Figure 1 shows the location of PS2 Variant A.

Roadway improvements along Tunnel Avenue would also include implementation of signage and curb painting to designate two new bus shuttle stops along the northbound and southbound lanes, and striping of a new crosswalk from the northbound bus shuttle stop to the Bayshore Station. Figure 1 shows the roadway improvements along Tunnel Avenue.

The footprint of PS2 analyzed in the Final EIR was approximately 32 feet by 95 feet. The footprint of PS2 Variant A would be approximately 40 feet by 140 feet. A larger footprint is necessary for the following reasons:

1. To allow for driveway access within the site to facilitate maintenance and equipment replacement. This new access alleviates the need to perform work from the track. Additionally, the access road can also be used for maintenance vehicle parking, which removes maintenance vehicles from being parked along city streets, in front of residents.

2. Design progression included increased equipment separation and safety clearances. Additionally, the actual pieces of equipment (e.g., transformers) that will be installed are larger than previously contemplated.

Table 1 describes the potential environmental impacts of PS2 Variant A and analyzes any potential change in the level of significance as determined in the 2015 FEIR.
Figure 1, Proposed Paralleling Station 2 (PS2) Variant A and Roadway Improvements
San Francisco
Table 1. Summary of Impacts of PS2 Variant A

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| **Aesthetics**      | • PS2 Variant A would be located between the Caltrain tracks and Tunnel Avenue, on land used as a surface parking lot for the Caltrain Bayshore Station. There would be partial views of PS2 Variant A from several residences and a religious facility to the northeast of the site. Employees of and visitors to the Recology San Francisco Transfer Station and Hazardous Waste Facility to the west of the site, as well as rail users at Bayshore Station, and roadway users and recreationalists would experience altered views. Views of PS2 Variant A would be consistent with existing views that include wooden poles and electrical transmission lines paralleling the tracks, rail infrastructure such as a 30-foot high multi-track signal bridge extending across the tracks, and adjacent industrial uses.  
• PS2 Variant A would not be out of character with the surrounding transportation corridor or industrial uses and would not degrade the visual character.  
• Construction of PS2 Variant A could result in spillover light or glare, and new nighttime lighting for security purposes could spill outside of the site boundaries, creating a new source of nuisance lighting or glare. However, these effects would not affect residents.  
• Mitigation Measures AES-4a and AES-4b would apply to reduce impacts from lighting; the impact determinations identified in the Final EIR would not change.  
• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding aesthetics that were analyzed in the Final EIR. |
| **Air Quality**      | • No new air quality impacts are identified relative to PS2 Variant A because the amount and duration of construction would be similar to the construction of the other paralleling stations.  
• Mitigation Measures AQ-2a, AQ-2b, and AQ-2c would apply to reduce construction impacts regarding criteria pollutants and toxic air contaminants (TACs) by requiring Bay Area Air Quality Management District (BAAQMD) best management practices (BMPs) and equipment requirements to reduce construction-related dust, reactive organic gasses (ROG), and nitrogen oxides (NOx) emissions. The impact determinations identified in the Final EIR would not change.  
• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding air quality that were analyzed in the Final EIR. |
| **Biological Resources** | • The PS2 Variant A location is a paved surface parking lot. The lot is devoid of vegetation except along the eastern edge of the site where there is some perimeter landscaping with ornamental shrubbery. No waters of the U.S., including wetlands, or habitat for special-status species are present with the boundaries of the PS2 Variant A location.  
• The impact determinations identified in the Final EIR would not change.  
• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding biological resources that were analyzed in the Final EIR. |
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<tr>
<td><strong>Cultural Resources</strong></td>
<td>• An ICF Architectural Historian reviewed the records for the PS2 Variant A site on April 23, 2018 and determined that there are no historic resources on or adjacent to the site.</td>
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<td>• An ICF Archaeologist reviewed the records for the PS2 Variant A site on April 23, 2018 and determined that there are no archaeological sites or areas or known archaeological sensitivity within the vicinity of the site and there would be no new archaeological effect related to selection of the variant.</td>
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<td>• Mitigation Measures CUL-2a through CUL-2f would apply to reduce potential impacts to unknown archaeological resources; the impact determinations identified in the Final EIR would not change.</td>
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<td>• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding cultural resources that were analyzed in the Final EIR.</td>
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<td><strong>Electromagnetic Fields (EMI)/Electromagnetic Interference (EMI)</strong></td>
<td>• PS2 Variant A would not be any closer to sensitive receptors than the paralleling station sites included in the Final EIR and thus EMF/EMI impacts related to PS2 Variant A would also be below the EMF thresholds used in the Final EIR for the general public, workers, and individuals with pacemakers or implanted medical devices.</td>
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<td>• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding EMI/EMF than were analyzed in the Final EIR.</td>
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<td><strong>Geology, Soils, Seismicity</strong></td>
<td>• The soil underlying the PS2 Variant A site is 131 – Urban land</td>
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<td>• The site has low susceptibility to liquefaction and low susceptibility to landslides.</td>
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<td>• Expansive soil could exist on the site since specific soil sampling has not been completed. Mitigation Measures GEO-4a and GEO-4b requires identification and mitigation of expansive soils.</td>
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<td>• Mitigation Measure GEO-1 would require a site-specific geotechnical study for PS2 Variant A to reduce exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides; the impact determinations identified in the Final EIR would not change.</td>
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<td>• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding geology, soils, and seismicity than were analyzed in the Final EIR.</td>
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<td><strong>Greenhouse Gas Emissions</strong></td>
<td>• PS2 Variant A would not introduce any new construction impacts not previously analyzed in the Final EIR because the amount of construction would be the same as the PS2 site analyzed in the Final EIR.</td>
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<td>• With PS2 Variant A, there would be no changes to normal train operations, so there would be no change to operational emissions.</td>
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<td>• PS2 Variant A would not be more at risk to potential effects of climate change.</td>
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<td>• The impact determinations identified in the Final EIR would not change.</td>
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<td>• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding greenhouse gas emissions than were analyzed in the Final EIR.</td>
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| Hazards and Hazardous Material         | • Nine hazardous materials sites are within 0.25 mile of PS2 Variant A. Four of the nine cases are closed and represent a low level of concern, while the remaining five cases represent a medium or high level of concern.  
• PS2 Variant A is not located within 0.25 mile of a school.  
• Mitigation Measures HAZ-2a and HAZ-2b would require additional actions for areas with a high likelihood of contaminated media and would control exposure of workers and the public to contamination where encountered. This mitigation would also control potential spills of hazardous material during construction, as well as potential effects on emergency plans.  
• The impact determinations identified in the Final EIR would not change.  
• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding hazards and hazardous materials that were analyzed in the Final EIR. |
| Hydrology and Water Quality            | • PS2 Variant A would not be within the 100-year floodplain.  
• PS2 Variant A would not be in proximity to any waterways or other drainages. The nearest waterway is the Visitacion Creek, located approximately 1 mile south of the site, east of the Caltrain tracks.  
• PS2 Variant A would be located on a site that is currently paved, therefore no change in impervious surface area would occur; whereas the PS2 site analyzed in the Final EIR would increase the impervious surface area by developing barren land. Any regulatory requirements that would apply to the prior PS2 site would also apply to impervious surfaces and stormwater runoff at this site.  
• PS2 Variant A would not be located in an area vulnerable to potential sea level rise.  
• If groundwater is encountered during construction activities, dewatering may be required and Mitigation Measure HYD-1 would be implemented.  
• The impact determinations identified in the Final EIR would not change.  
• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding hydrology and water quality than were analyzed in the Final EIR. |
### Environmental Topic | Impact
--- | ---
**Land Use and Recreation** | • The site for PS2 Variant A is zoned as Heavy Industrial (HI).
• The site is owned by JPB and currently used as a surface parking lot for the Caltrain Bayshore Station. It is located within the existing Caltrain right-of-way between the Caltrain tracks on the west and Tunnel Avenue on the east.
• Land uses west of the site consist of railroad right-of-way, and land uses east of the site are light and heavy industrial. The nearest residences are approximately 400 feet northeast of the site.
• PS2 Variant A would not physically divide an established community and would be consistent with the existing Caltrain operations and compatible with the surrounding land uses.
• The site is not within an existing specific, area, or precise plan.
• The closest park is the Little Hollywood Park located approximately 0.15 mile east of the PS2 Variant A site. PS2 Variant A would not be visible from this park.
• The impact determinations identified in the Final EIR would not change.
• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding land use and recreation than were analyzed in the Final EIR.

**Noise and Vibration** | • With PS2 Variant A, the character of construction and operational noise would be the same as disclosed in the Final EIR.
• PS2 Variant A would be located approximately 400 feet from single-family residences. Due to the distance of the site from single-family residences (more than 250 feet farther from single-family residences than the PS2 site analyzed in the Final EIR), it is not anticipated that there would be significant impacts from noise at PS2 Variant A based on the analysis of other paralleling stations in the Final EIR.
• The impact determinations identified in the Final EIR would not change.
• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding noise and vibration than were analyzed in the Final EIR.

**Population and Housing** | • No housing or other displacements would occur with PS2 Variant A.
• The impact determinations identified in the Final EIR would not change.
• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding population and housing than were analyzed in the Final EIR.

**Public Services and Utilities** | • There would be no change in demand for public service or utilities with implementation of PS2 Variant A as the demand would be the same as the demand for the PS2 site analyzed in the Final EIR.
• The impact determinations identified in the Final EIR would not change.
• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding public services and utilities than were analyzed in the Final EIR.
Environmental Topic | Impact
--- | ---
Transportation | • Impacts to transportation during construction would be similar to those described in the Final EIR. Mitigation Measure TRA-1 would reduce temporary construction impacts on roadway traffic; the impact determinations identified in the Final EIR would not change.

• PS2 Variant A would require reconfiguration of the existing Bayshore Station parking lot and driveway and the removal of 19 parking spaces (50 percent of the total existing spaces). According to Appendix D of the Final EIR, the existing average daily parking occupancy at the Bayshore Station is only 13 percent of capacity. In the Final EIR, the projected demand in 2020 with project would be 67 spaces and in 2040 with project would be 114 spaces, so there would be deficits of 48 spaces in 2020 and 93 spaces in 2040. As explained in the Final EIR, a parking deficit in and of itself, or the need to find a parking space off-site, while inconvenient, is not inherently a significant physical impact on the environment. Some station users unaware of the parking deficits may circle, but experienced station users will modify their behavior to take into account the parking deficits and take alternative actions. Those actions may include arriving earlier, using other nearby stations with available parking, using the kiss-and-ride, using parking areas farther from the station, or accessing the station via other modes such as transit, biking or walking. At the extreme, lack of vehicle parking could result in some riders deciding to use an alternative transit system, carpool, or drive to their destination alone. This could result in a slight decrease in Caltrain ridership than estimated in the Final EIR. Given that the Proposed Project would still result in substantial ridership increases (approximately 11,000 in 2020 compared with the No Project, compared to a deficit of 48 spaces in 2020 or 67 in 2040 at Bayshore), the Proposed Project's benefits to regional traffic, noise, air quality, and greenhouse gases would be substantial with the PS2 Variant A (even though these benefits would be slightly less than those that would occur with the PS2 site evaluated in the Final EIR). In this scenario, if there is lower station ridership at the Bayshore station, then localized traffic around the station would also be lower.

• PS2 Variant A would have no adverse operational impact on transportation (traffic, transit, bicycle and pedestrian facilities) because it would be located within the Caltrain ROW and because it is not anticipated to result in a parking deficit that has the potential to affect Caltrain ridership.

• PS2 Variant A would include roadway improvements (e.g., signage and striping of two shuttle stops and a crosswalk) along Tunnel Avenue that would permanently enhance the safety for transit users and pedestrians at the Bayshore Station. These safety improvements would not occur with the PS2 site evaluated in the Final EIR.

• PS2 Variant A would not change any conditions for freight operations.

• The impact determinations identified in the Final EIR would not change.

• PS2 Variant A would not result in new significant impacts or a substantial increase in the severity of impacts regarding transportation than were analyzed in the Final EIR.
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| **Cumulative**      | • No new impacts associated with PS2 Variant A have been identified. Therefore, there would be no change to the cumulative analysis.  
• The impact determinations identified in the Final EIR would not change.  
• PS2 Variant A would not result in new cumulative significant impacts or a substantial increase in the severity of cumulative impacts that were analyzed in the Final EIR. |
| **Alternatives**    | • No new alternatives identified relative to PS2 are proposed. The Final EIR together with this addendum consider two potential sites for PS2. No new or substantially more severe impacts were identified with implementation of PS2 Variant A compared to the prior option. Therefore, two options for PS2 is sufficient and additional alternatives are not warranted. |
Conclusion

This addendum analyzes the proposed PS2 Variant A and compares the potential impacts to the conclusions of the 2015 Final EIR. This analysis was completed to determine the requirement for further environmental documentation pursuant to the State CEQA Guidelines sections 15162, 15163 and 15164. This analysis has identified no new or substantially more severe impacts of the proposed PS2 Variant A compared with those identified and evaluated in the 2015 Final EIR. Mitigation measures identified in the 2015 Final EIR would be applied to PS2 Variant A, as proposed, to reduce or avoid significant impacts. With the application of these previously-identified mitigation measures, no new significant impacts or substantial increases in the severity of previously identified impacts requiring revisions to the 2015 Final EIR would occur. No new mitigation measures are required for the adoption and implementation of the proposed PS2 Variant A.
Proposed Paralleling Station 2 (PS2) Variant A and Roadway Improvements

San Francisco
RESOLUTION NO. 2018-
BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA

***

APPROVING ADDENDUM #4 TO THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE PENINSULA CORRIDOR ELECTRIFICATION PROJECT

WHEREAS, in January 2015, pursuant to Resolution 2015-03, the Peninsula Corridor Joint Powers Board (JPB) certified a Final Environmental Impact Report (FEIR) for the Peninsula Corridor Electrification Project (PCEP); and

WHEREAS, on February 4, 2016, pursuant to Resolution 2016-11, the JPB adopted Addendum #1 to the FEIR pertaining to the addition of a potential site for one of the paralleling stations; and

WHEREAS, on October 5, 2017, pursuant to Resolution 2017-50, the JPB adopted Addendum #2 to the FEIR pertaining to the relocation of OCS poles and wires so as to not preclude the future implementation of high speed rail service by the California High Speed Rail Authority; and

WHEREAS, on October 5, 2017, pursuant to Resolution 2017-51, the JPB adopted Addendum #3 to the FEIR pertaining to the specific design of the PG&E substation upgrades and additional interconnection options; and

WHEREAS, the FEIR identified a potential location for an electrical “paralleling” station, known as Paralleling Station 2 (PS 2); and

WHEREAS, subsequent review by the PCEP staff has identified a new location, denoted as “Variant A,” for PS 2, which was not analyzed in the FEIR; and

WHEREAS, the refinements to the PCEP do not: (1) trigger the need for subsequent environmental review pursuant to Section 21166 of the Public Resources Code and Section 15162 of the CEQA Guidelines; (2) require major revisions of the Final EIR due to new or substantially increased significant environmental effects; or (3) result in any substantial changes with respect to the circumstances under which the PCEP will be undertaken that would require major revisions of the Final EIR due to new or substantially increased significant environmental impacts; and there has been no
discovery of new information of substantial importance that would trigger or require major revisions of the Final EIR due to new or substantially increased significant environmental effects; and

WHEREAS, the JPB Board of Directors has reviewed and considered Addendum #4 to the FEIR for the PCEP, which is attached as Exhibit A.

NOW THEREFORE BE IT RESOLVED by the Board of Directors of the Peninsula Corridor Joint Powers Board as follows:

1. Based on the foregoing, the Board certifies that Addendum #4 to the FEIR has been completed in compliance with CEQA and reflects the independent judgment of the Board; and, hereby adopts Addendum #4 to the FEIR; and

2. Approves inclusion of the new potential site for Paralleling Station 2 as part of the PCEP.

Regularly passed and adopted this 2nd day of AUGUST, 2018 by the following vote:

AYES:

NOES:

ABSENT:

_____________________
Chair, Peninsula Corridor Joint Powers Board

ATTEST:

_____________________
JPB Secretary
AGENDA ITEM #4 (L)
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: John Funghi
Chief Officer, Caltrain
Modernization Program

SUBJECT: ADDENDUM #5 TO THE 2015 PENINSULA CORRIDOR ELECTRIFICATION PROJECT FINAL ENVIRONMENTAL IMPACT REPORT

ACTION
Staff Coordinating Council recommends the Board:

1. Adopt Addendum #5 to the 2015 Peninsula Corridor Electrification Project (PCEP) Final Environmental Impact Report (FEIR)
2. Approve inclusion of new potential site for Paralleling Station 3 for the PCEP

SIGNIFICANCE
The JPB, per Resolution No. 2015-03, certified the PCEP FEIR on January 8, 2015. Since certification of the FEIR, staff has identified one new potential site for Paralleling Station 3 (PS3), which is denoted as “Option 3” (approximately mile post 14.6), in Burlingame.

A new location (PS 3 Option 3) was needed because the original location included in the FEIR is no longer viable. The location of the original PS3 is in conflict with the potential Broadway Grade Separation Project.

Because PS 3 Option 3 was not included in the FEIR, staff and the consultant for the JPB, ICF, have completed Addendum #5 to the PCEP FEIR. Addendum #5 did not identify any issues relative to the addition of proposed PS3 Option 3 that would require preparation of a supplemental or subsequent Environmental Impact Report.

Adopting Addendum #5 and approving the inclusion of the additional paralleling station site will modify the PCEP project to reflect the PS3 Option 3 location.

BUDGET IMPACT
As a result of this action, there is no increase in the PCEP overall project cost estimate that was presented to the board in November 2014.
BACKGROUND

Under CEQA, an addendum to an EIR is needed if minor technical changes or modifications to a proposed project occur (CEQA Guidelines Section 15164). An addendum is appropriate only if these minor technical changes or modifications do not result in any new significant impacts or a substantial increase in the severity of previously identified significant impacts. An addendum does not need to be circulated for public review (CEQA Guidelines Section 15164(c)); however, an addendum is to be considered along with the FEIR by the decision-making body prior to making a decision on a project (CEQA Guidelines Section 15164(d)).

PS3 Option 3 is located at approximately Mile Post 14.6, west of the Caltrain tracks along California Drive in Burlingame. The approximately 0.14 acre site would be situated approximately 130 feet south of the intersection of California Drive and Mills Avenue, partially on land owned by JPB within the Caltrain right-of-way and partially on land owned by the City and County of San Francisco within the San Francisco Public Utilities Commission’s (SFPUC) right-of-way. The acquisition of 6,000 square feet of land (120 feet by 50 feet) within the SFPUC’s right-of-way would be required. The site would be set back from California Drive by 15 feet to avoid existing overhead utility lines and poles, and would be accessed via a driveway at the southern end of the site that connects to California Drive. Figure 1 in Addendum #5 to the FEIR shows the location of PS3 Option 3.

Staff and the JPB’s environmental consultant, ICF, have prepared the attached Addendum #5 to the PCEP FEIR (State Clearinghouse No. 2013012079) in accordance with CEQA Guidelines Section 15164 and have identified no new or substantially more severe or significant impacts of the proposed PS3 Option 3 compared with those identified and evaluated in the FEIR. Mitigation measures identified in the FEIR would be applied to PS3 Option 3, to reduce or avoid significant impacts. With the application of these previously-identified mitigation measures, no new significant impacts or substantial increases in the severity of previously identified impacts requiring revisions to the FEIR would occur. No new mitigation measures are required for the adoption and implementation of the proposed PS3 Option 3. All relevant mitigation measures from the FEIR would apply to PS3 Option 3, as applicable.

Enclosures provided:

1. Addendum #5 to the FEIR

Prepared By:

Liz Antin, Senior Planner 650.295.6851
Stacy Cocke, Deputy Director, CalMod 650.508.6207
Peninsula Corridor Electrification Project
Addendum to the Final Environmental Impact Report
Paralleling Station 3 Option 3

Prepared by ICF for the Peninsula Corridor Joint Powers Board, July 2018

The Peninsula Corridor Joint Power Board (JPB) certified the Peninsula Corridor Electrification Project (PCEP) Environmental Impact Report (EIR) on January 8, 2015 (JPB 2015). Since certification of the Final EIR, the JPB has identified one new potential site for Paralleling Station 3 (PS3). The environmental effects of the new PS3 Option 3 compared with the environmental effects of the PS3 Options 1 and 2 evaluated in the certified 2015 Final EIR are examined in this addendum.

Under the California Environmental Quality Act (CEQA), an addendum to an EIR is needed if minor technical changes or modifications to a proposed project occur (CEQA Guidelines Section 15164). An addendum is appropriate only if these minor technical changes or modifications do not result in any new significant impacts or a substantial increase in the severity of previously identified significant impacts. An addendum does not need to be circulated for public review (CEQA Guidelines Section 15164(c)); however, an addendum is to be considered along with the Final EIR by the decision-making body prior to making a decision on a project (CEQA Guidelines Section 15164(d)). This addendum to the PCEP Final EIR (State Clearinghouse No. 2013012079) has been prepared in accordance with CEQA Guidelines Section 15164.

Project Background and Supplemental Environmental Review

In 2015, the JPB certified the Final EIR for the PCEP. The Proposed Project would require the installation of 130 to 140 single-track miles of overhead contact system (OCS) for the distribution of electrical power to the electric rolling stock. The OCS would be powered from a 25 kilovolt (kV), 60 Hertz (Hz), single-phase, alternating current (AC) supply system consisting of two traction power substations (TPSs), one switching station (SWS), and seven paralleling stations (PSs). The Final EIR evaluated environmental impacts associated with the four options for the site of the northern TPS (TPS1 in South San Francisco) and three options for the site of the southern TPS (TPS2 in San Jose). In addition, the Final EIR evaluated environmental impacts associated with one switching station (SWS1) (with two site location options) and seven paralleling stations (PS1 through PS7) at a spacing of approximately 5 miles. Two options were evaluated for the PS3 and PS6 sites and three options were evaluated for the PS4, PS5, and PS7 sites. Subsequent addenda have reviewed additional options for PS2 and PS7, minor pole relocations, and design detail for the PG&E interconnections and substation upgrades.

Since certification of the Final EIR, the JPB has proposed one additional alternative location for PS3 (Option 3). A new location (PS 3 Option 3) was needed because the original location included in the FEIR is no longer viable. The location of the original PS3 is in conflict with the potential Broadway Grade Separation Project.

PS3 Option 3 would be located at approximately Mile Post 14.6, west of the Caltrain tracks along California Drive in Burlingame. The approximately 0.14 acre site would be situated approximately 130
feet south of the intersection of California Drive and Mills Avenue, partially on land owned by JPB within the Caltrain right-of-way and partially on land owned by the City and County of San Francisco within the San Francisco Public Utilities Commission's (SFPUC) right-of-way. The acquisition of 6,000 square feet of land (120 feet by 50 feet) within the SFPUC’s right-of-way would be required. The site would be setback from California Drive by 15 feet to avoid existing overhead utility lines and poles, and would be accessed via a driveway at the southern end of the site that connects to California Drive. **Table 1** describes the potential environmental impacts of PS3 Option 3 and analyzes any potential change in the level of significance as determined in the 2015 Final EIR.

An attached figure, Figure 1, shows the site location and the area of property acquisition.
Figure 1, Proposed Paralleling Station 3 (PS3) Option 3

Burlingame
Table 1. Summary of Impacts of PS3 Option 3

<table>
<thead>
<tr>
<th>Environmental Topic</th>
<th>Impact</th>
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<tr>
<td>Aesthetics</td>
<td>The EIR significance criteria concern scenic vistas, scenic roadways, visual character/quality, and light and glare. The area surrounding the site is not a scenic vista as it consists of a roadway, single-family residences, utility poles and wires, and urban trees, and thus no impacts to a scenic vista are identified. California Drive is not a designated scenic roadway and thus no impacts to scenic roadways are identified. Impacts associated with visual character/quality and light and glare are addressed below.</td>
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<td>PS3 Option 3 would be located between the Caltrain tracks and California Drive, on land partially within Caltrain's and SFPUC's rights-of-way, across the street from residential areas along California Drive in Burlingame. The existing visual elements of the PS3 Option 3 area consist of suburban residential land uses to the west of the Caltrain corridor, and a row of trees and overhead utility lines and poles lining the SFPUC right-of-way. Nearby residents, roadway users, and recreationalists (e.g., bicyclists) using local roadways have views toward the PS3 Option 3 location, which would be approximately 60 feet closer to adjacent residences than the PS3 Option 1 evaluated in the Final EIR. Figure 2a depicts the existing and simulated view of the PS3 Option 1 evaluated in the Final EIR. Figure 2b depicts the existing view from the neighborhood west of the corridor to the PS3 Option 3 site and a simulation of PS3 Option 3 with potential vegetative screening.</td>
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<td>The introduction of PS3 Option 3 would alter the visual character of the existing railway ROW, overhead utility lines and poles, and vegetative screening due to removal of existing vegetation at the site and the introduction of new structures and equipment. PS3 Option 3 would also introduce an elevated element (the gantry) that would be higher than current features on the site. However, given the existing visual character is a busy roadway with utility poles and wires and urban trees, the new features only moderately change the overall visual character by introducing additional utility-like infrastructure. To reduce the change in visual character, Mitigation Measure BIO-5 would minimize impacts on trees lining the SFPUC right-of-way to only that necessary for electric equipment safety, while Mitigation Measure AES-2b would require vegetative screening along California Avenue between the roadway and PS3 Option 3, and appropriate color treatment for the TPF facilities to reduce the visual effect on views from the neighborhood. With mitigation, the change in visual character would be lessened as the paralleling station equipment and compound would be screened from view from the roadway and residences by vegetative screening in the form of a vegetated wall. With the vegetated wall, the elevated gantry and some of the higher parts of the paralleling station would still be apparent. However, given the existing visual character is not a high value aesthetic landscape, but rather a mixed urban one of residences, roadway, and train and utility infrastructure, the residual aesthetic impact after mitigation is considered less than significant.</td>
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<td>Construction of PS3 Option 3 could result in spillover light or glare, and new nighttime lighting for security purposes could spill outside of the site boundaries, creating a new source of nuisance lighting or glare to nearby residents. Mitigation Measures AES-4a and AES-4b would apply to reduce impacts from lighting; the impact determinations identified in the Final EIR would not change.</td>
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Figure 2a
PS-3 Location, 2015 PCEP FEIR
Figure 2b
PS-3 Proposed Addendum #5 Location

Existing View of New Location for PS3

Simulated View of PS3, Relocated to Avoid Broadway Grade Separation Project
**Environmental Topic Impact**

- PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding aesthetics that were analyzed in the Final EIR.

**Air Quality**

- No new air quality impacts are identified relative to PS3 Options 1 and 2 because the amount and duration of construction would be similar to the construction of the other paralleling stations.
- Mitigation Measures AQ-2a, AQ-2b, and AQ-2c would apply to reduce construction impacts regarding criteria pollutants and toxic air contaminants (TACs) by requiring Bay Area Air Quality Management District (BAAQMD) best management practices (BMPs) and equipment requirements to reduce construction-related dust, reactive organic gasses (ROG), and nitrogen oxides (NOx) emissions. The impact determinations identified in the Final EIR would not change.
- PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding air quality than were analyzed in the Final EIR.

**Biological Resources**

- The PS3 Option 3 is located in an area covered by urban landscaping: trees and ornamental shrubs line the existing SFPUC right-of-way. Tree surveys have not been conducted at this location, but the dominant tree species along the Caltrain right-of-way in Burlingame include acacia trees, eucalyptus, and oak. No waters of the U.S., including wetlands, or habitat for special-status species are present with the boundaries of the PS3 Option 3 location.
- The trees provide suitable habitat for migratory birds during the breeding season (February 1 to August 31). No other habitat for special-status species are present with the boundaries of the PS3 Option 3.
- Mitigation Measures BIO-1a, BIO-1g, and BIO-1j would apply to reduce potential impacts to nesting birds and Mitigation Measure BIO-5 would apply to reduce impacts from tree pruning and removal; the impact determinations identified in the Final EIR would not change.
- PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding biological resources than were analyzed in the Final EIR.

**Cultural Resources**

- An ICF Architectural Historian reviewed the records for the PS3 Option 3 site on June 20, 2018 and determined that there are no historic resources on or adjacent to the site.
- An ICF Archaeologist reviewed the records for the PS3 Option 3 site on June 20, 2018 and determined that there are no archaeological sites or areas of known archaeological sensitivity within the vicinity of the site and there would be no new archaeological effect related to selection of PS3 Option 3.
- Mitigation Measures CUL-2a through CUL-2f would apply to reduce potential impacts to unknown archaeological resources; the impact determinations identified in the Final EIR would not change.
- PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding cultural resources than were analyzed in the Final EIR.
### Environmental Topic Impact

| Electromagnetic Fields (EMF)/Electromagnetic Interference (EMI) | The distance from PS3 Option 3 to sensitive receptors would be similar to that of the paralleling station sites evaluated in the Final EIR and thus EMF/EMI impacts related to PS3 Option 3 would also be below the EMF thresholds used in the Final EIR for the general public, workers, and individuals with pacemakers or implanted medical devices.  
| | PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding EMF/EMI than were analyzed in the Final EIR. |
| Geology, Soils, Seismicity | The soil underlying the PS3 Option 3 site is 132—Urban land-Orthents, cut and fill complex.  
| | The site has moderate susceptibility to liquefaction and low susceptibility to landslides.  
| | Expansive soil could exist on the site since specific soil sampling has not been completed. Mitigation Measures GEO-4a and GEO-4b require identification and mitigation of expansive soils.  
| | Mitigation Measure GEO-1 would require a site-specific geotechnical study for PS3 Option 3 to reduce exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landsides; the impact determinations identified in the Final EIR would not change.  
| | PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding geology, soils, and seismicity than were analyzed in the Final EIR. |
| Greenhouse Gas Emissions | PS3 Option 3 would not introduce any new construction impacts not previously analyzed in the Final EIR because the amount of construction would be the same as the PS3 sites analyzed in the Final EIR.  
| | With PS3 Option 3, there would be no changes to normal train operations, so there would be no change to operational emissions.  
| | The impact determinations identified in the Final EIR would not change.  
| | PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding greenhouse gas emissions than were analyzed in the Final EIR. |
Environmental Topic: Impact

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<tr>
<th>Hazards and Hazardous Material</th>
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<td>- Thirteen hazardous materials sites are within 0.25 mile of PS3 Option 3. Each of these thirteen cases are closed and represent a low level of concern.</td>
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<td>- Sunshine Family Child Care and Coolidge Grammar School are located approximately 0.18 mile southeast and 0.13 mile south of PS3 Option 3, respectively; the distances from these schools to PS3 Option 3 is comparable to the distance of these schools to the PS3 sites evaluated in the Final EIR.</td>
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<td>- Mitigation Measures HAZ-2a and HAZ-2b would require additional actions for areas with a high likelihood of contaminated media and would control exposure of workers and the public to contamination where encountered. This mitigation would also control potential spills of hazardous material during construction, as well as potential effects on emergency plans. With these mitigation measures, construction and operation of PS3 Option 3 would not affect land uses outside of the project footprint, including schools.</td>
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<td>- The impact determinations identified in the Final EIR would not change.</td>
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<td>- PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding hazards and hazardous materials than were analyzed in the Final EIR.</td>
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<td>Environmental Topic Impact</td>
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<td>Hydrology and Water Quality</td>
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</tbody>
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### Environmental Topic Impact

#### Land Use and Recreation
- The site for PS3 Option 3 is zoned as unclassified, as it is within the existing Caltrain and SFPUC rights-of-way. The site is adjacent to areas covered by the North Burlingame/Rollins Road Specific Plan, and is separated from residential development to the west by a major arterial route, California Drive, which fronts along the Caltrain ROW. The nearest residences are approximately 60 feet south of the site, but would be buffered by California Drive.
- PS3 Option 3 would not physically divide an established community and would be consistent with the existing Caltrain and SFPUC operations and compatible with the surrounding land uses.
- The site is not within an existing specific, area, or precise plan.
- The closest park is the Village Park located approximately 0.18 mile east of the PS3 Option 3 site. PS3 Option 3 would not be visible from this park.
- The impact determinations identified in the Final EIR would not change.
- PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding land use and recreation than were analyzed in the Final EIR.

#### Noise and Vibration
- With PS3 Option 3, the character of construction and operational noise would be the same as disclosed in the Final EIR.
- PS3 Option 3 would be located approximately 60 feet from single-family residences. It is not anticipated that there would be new significant impacts from operational noise at PS3 Option 3 based on the analysis of paralleling station noise in the Final EIR because significant operational noise effects to residential receptors would not exceed the significance threshold at locations 55 feet or more away from a paralleling station.
- The impact determinations identified in the Final EIR would not change.
- PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding noise and vibration than were analyzed in the Final EIR.

#### Population and Housing
- No housing or other displacements would occur with PS3 Option 3.
- The impact determinations identified in the Final EIR would not change.
- PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding population and housing than were analyzed in the Final EIR.

#### Public Services and Utilities
- There would be no change in demand for public service or utilities with implementation of PS3 Option 3 as the demand would be the same as previously analyzed options.
- The impact determinations identified in the Final EIR would not change.
- PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding public services and utilities than were analyzed in the Final EIR.
## Environmental Topic Impact

### Transportation
- Impacts to transportation during construction would be similar to those described in the Final EIR. Mitigation Measure TRA-1 would reduce temporary construction impacts on roadway traffic; the impact determinations identified in the Final EIR would not change.
- PS3 Option 3 would have no adverse operational impact on transportation (traffic, transit, bicycle and pedestrian facilities) because it would result in minimal operational traffic due to site maintenance.
- PS3 Option 3 would not change any conditions for freight operations.
- The impact determinations identified in the Final EIR would not change.
- PS3 Option 3 would not result in new significant impacts or a substantial increase in the severity of impacts regarding transportation than were analyzed in the Final EIR.

### Cumulative
- No new impacts associated with PS3 Option 3 have been identified. Therefore, there would be no change to the cumulative analysis.
- The impact determinations identified in the Final EIR would not change.
- PS3 Option 3 would not result in new cumulative significant impacts or a substantial increase in the severity of cumulative impacts that were analyzed in the Final EIR.

### Alternatives
- No new alternatives identified relative to PS3 are proposed. The Final EIR together with this addendum consider three potential sites for PS3. No new or substantially more severe impacts were identified with implementation of PS3 Option 3 compared to the prior options. Therefore, three options for PS3 are sufficient and additional alternatives are not warranted.
Conclusion

This addendum analyzes the proposed PS3 Option 3 and compares the potential impacts to the conclusions of the 2015 Final EIR. This analysis was completed to determine the requirement for further environmental documentation pursuant to the State CEQA Guidelines sections 15162, 15163 and 15164. This analysis has identified no new or substantially more severe impacts of the proposed PS3 Option 3 compared with those identified and evaluated in the 2015 Final EIR. Mitigation measures identified in the 2015 Final EIR would be applied to PS3 Option 3, as proposed, to reduce or avoid significant impacts. With the application of these previously-identified mitigation measures, no new significant impacts or substantial increases in the severity of previously identified impacts requiring revisions to the 2015 Final EIR would occur. No new mitigation measures are required for the adoption and implementation of the proposed PS3 Option 3.
RESOLUTION NO. 2018-28

BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA

***

AUTHORIZING EXECUTIVE DIRECTOR TO APPROVE ADDENDUM #5 TO THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE PENINSULA CORRIDOR ELECTRIFICATION PROJECT

WHEREAS, in January 2015, pursuant to Resolution 2015-03, the Peninsula Corridor Joint Powers Board (JPB) certified a Final Environmental Impact Report (FEIR) for the Peninsula Corridor Electrification Project (PCEP); and

WHEREAS, on February 4, 2016, pursuant to Resolution 2016-11, the JPB adopted Addendum #1 to the FEIR pertaining to the addition of a potential site for one of the paralleling stations; and

WHEREAS, on October 5, 2017, pursuant to Resolution 2017-50, the JPB adopted Addendum #2 to the FEIR pertaining to the relocation of OCS poles and wires so as to not preclude the future implementation of high speed rail service by the California High Speed Rail Authority; and

WHEREAS, on October 5, 2017, pursuant to Resolution 2017-51, the JPB adopted Addendum #3 to the FEIR pertaining to the specific design of the PG&E substation upgrades and additional interconnection options; and

WHEREAS, on August 2, 2018, pursuant to Resolution 2018-27, the JPB adopted Addendum #4 to the FEIR pertaining to the addition of a potential site for Paralleling Station 2 at the Caltrain Bayshore Station; and

WHEREAS, the FEIR identified a potential location for another required electrical paralleling station in the City of Burlingame, known as Paralleling Station 3 (PS-3); and

WHEREAS, the FEIR-identified location for PS-3 conflicts with the preferred design for the Broadway Avenue Grade Separation Project, which the City of Burlingame and the JPB desire to implement at such time as sufficient funding for the project is obtained, and relocation of PS-3 would add significantly to the costs of that project; and
WHEREAS, subsequent review by the PCEP staff has identified a new location, denoted as the "Mills Avenue Option," for PS-3, which was not analyzed in the FEIR, but neighbors of this new site have expressed concerns with this location; and

WHEREAS, following the identification of the Mills Avenue Option, the City of Burlingame has suggested that the JPB consider utilizing a site, denoted as the "Corp Yard Option," which is located primarily on JPB property east of tracks and adjacent to the City's corporation yard at 1361 North Carolan, through which the City would provide access; and

WHEREAS, the JPB is willing to consider the use of either of these alternate sites, provided that the following findings are met, such that the requisite refinements to the PCEP do not: (1) trigger the need for subsequent environmental review pursuant to Section 21166 of the Public Resources Code and Section 15162 of the CEQA Guidelines; (2) require major revisions of the Final EIR due to new or substantially increased significant environmental effects; or (3) result in any substantial changes with respect to the circumstances under which the PCEP will be undertaken that would require major revisions of the Final EIR due to new or substantially increased significant environmental impacts; and also provided there has been no discovery of new information of substantial importance that would trigger or require major revisions of the Final EIR due to new or substantially increased significant environmental effects; and

WHEREAS, in order to maintain the project schedule, it is essential that a final decision be made regarding the relocation of PS-3 by August 21, 2018.

NOW THEREFORE BE IT RESOLVED by the Board of Directors of the Peninsula Corridor Joint Powers Board as follows:

1. The Executive Director is directed to consider the Corp Yard Option or the Mills Avenue Option for the relocation of PS-3, in that order; and

2. Provided the City of Burlingame, by August 21, 2018, formally agrees to the following exchange of property rights for the Corp Yard Option to make the site usable for the PCEP and functional for the purpose of a paralleling station, which property rights must include (a) the City's grant of a temporary construction easement to the JPB of approximately 4000 square feet; (b) the City's grant of a permanent access and maintenance easement to the JPB at no cost; and (c) the JPB's purchase
of a strip of City's property no more than approximately 20 feet deep by 100 feet wide immediately adjacent to the JPB's right of way at a cost not to exceed the fair market value per square foot, or in the alternative, the JPB's long-term lease of said property at a nominal rent, Executive Director is authorized and directed to make the appropriate findings recited above and approve an Addendum #5 to the FEIR to relocate PS-3 to the Corp Yard Option site; and

3. In the event the City and the JPB have not entered into formal contractual commitments to the conditions and requirements specified in Item 2 above to implement the Corp Yard Option by August 21, 2018, the Executive Director is authorized and directed to proceed to make the appropriate findings recited above and approve an Addendum #5 to the FEIR to relocate PS-3 to the Mills Avenue Option site.

Regularly passed and adopted this 2nd day of August, 2018 by the following vote:

AYES:

NOES:

ABSENT:

____________________________
Chair, Peninsula Corridor Joint Powers Board

____________________________
JPB Secretary
AGENDA ITEM #4 (m)
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Derek Hansel
Chief Financial Officer

SUBJECT: EXECUTION OF CONTRACTS FOR TECHNOLOGY RELATED PRODUCTS AND SERVICES TO VENDORS UNDER COOPERATIVE PURCHASING PROGRAMS FOR AN AGGREGATE NOT-TO-EXCEED AMOUNT OF $750,000 FOR FISCAL YEAR 2019

ACTION
Staff Coordinating Council recommends the Board authorize the purchase, lease and/or rental of computer and telecommunications equipment and related services, digital reprographic equipment, hardware, software, licensing, installation and configuration of telecommunications equipment, maintenance agreements, and computer peripherals to vendors under approved cooperative intergovernmental purchasing programs available to the Peninsula Corridor Joint Powers Board (JPB), such as:

California Integrated Information Network 2/3 (CALNET 2/3)
National Joint Powers Alliance (NJPA)
California Multiple Award Schedule (CMAS)
State of California Strategic Source Initiative (CSSI)
National Association of State Procurement Officials (NASPO)
Foundation for California Community Colleges (FCCC)
Western States Contracting Alliance (WSCA)
General Services Administration (GSA)
National Inter-governmental Purchasing Alliance Company (National IPA)

This action includes delegation of authority to the Executive Director to enter into contracts over $150,000 with vendors under approved cooperative purchasing programs. Expenditures with vendors under these programs will not exceed the budgeted amount of $750,000 throughout Fiscal Year (FY) 2019.

SIGNIFICANCE
Approval of this contracting authority will provide the JPB with a cost-effective means to support its standardization policy and provide the latest technology and related services through cooperative intergovernmental purchasing programs. Contracts
issued under this authority will address the JPB's requirements for equipment, hardware, software, services, licensing, maintenance agreements, and programmed replacement of equipment that has reached the end of its useful life or has become unsuited to address the JPB's future needs.

**BUDGET IMPACT**
Funds for these purchases are programmed in the adopted FY2019 Capital and Operating budgets.

**BACKGROUND**
Given the rapidly changing technology of information system hardware, software and related services, various cooperative purchasing programs are available to provide these goods and services, such as CMAS, CSSI, GSA, WSCA, NJ PA, NASPO, FCCC, National IPA, and CALNET 2/3. Special districts, cities, counties and joint powers authorities are given statutory permission to procure competitively priced goods and services arising out of these vendor agreements. By utilizing such cooperative purchasing programs, the JPB saves considerable time and expense associated with independent procurements, which would be unlikely to yield more favorable pricing or service.

All vendors selected will hold valid agreements under the corresponding cooperative purchasing program. Contracts will be executed only with vendors whose contracts were awarded under a cooperative buying agreement on a basis that complies with the JPB's statutory procurement authority and policy and will include the JPB's terms and conditions, as appropriate. Other cooperative purchasing consortia may be added to this program and utilized for acquisition of technology items during FY2019 but only to the extent each fully complies with the JPB's statutory procurement authority and policy.

Prepared By: Carl Cubba, Director, Information Technology and Telecommunications

650.508.6206
RESOLUTION NO. 2018 -

BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA

***

AUTHORIZING EXECUTION OF CONTRACTS FOR TECHNOLOGY RELATED PRODUCTS AND SERVICES TO VENDORS UNDER COOPERATIVE PURCHASING PROGRAMS FOR AN AGGREGATE NOT-TO-EXCEED AMOUNT OF $750,000 FOR FISCAL YEAR 2019

WHEREAS, the Peninsula Corridor Joint Powers Board (JPB) will require new personal computers, computer and telecommunications equipment and related services, digital reprographic equipment, software, hardware, licensing and maintenance agreements, and computer peripherals throughout Fiscal Year (FY) 2019, to fulfill new technology requirements, to support the JPB's standardization policy, and to replace technology equipment that has reached the end of its useful life; and

WHEREAS, in light of the need to standardize, update and purchase the latest technology in personal computers, telecommunications equipment, and other related equipment and services in the most cost-effective manner, the JPB has determined that an independent JPB-initiated solicitation process for the procurements described above is unlikely to be in the JPB's best interest; and

WHEREAS, the State of California and other cooperative purchasing consortiums including the California Multiple Award Schedule (CMAS), the State of California Strategic Source Initiative (CSSI), the National Intergovernmental Purchasing Alliance Company (National IPA), Western States Contracting Alliance (WSCA), the California Integrated Information Network 2 (CALNET2/3), the Foundation for California Community Colleges (FCCC), National Joint Powers Alliance (NJPA), National Association of State Procurement Officials (NASPO), and the General Services
Administration (GSA) have established programs in which the JPB can participate in order to procure favorably priced technology systems equipment and related services; and

WHEREAS, Staff Coordinating Council (SCC) recommends that the JPB participate in the above-mentioned programs, as well as additional cooperative purchasing programs, to the extent such programs fully comply with the JPB’s statutory procurement authority and policy; and

WHEREAS, SCC also recommends that the Executive Director or his designee be authorized to enter into contracts that exceed $150,000 with vendors under JPB-approved cooperative purchasing programs to meet its personal computer, telecommunications equipment, and other related technology equipment and services requirements for FY2019, pursuant to the terms and conditions of each program’s vendor agreements, up to an aggregate not-to-exceed amount of $750,000.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Peninsula Corridor Joint Powers Board hereby takes the following actions:

1. Determines that an independent JPB-initiated solicitation process for each purchase, lease and/or rental of new personal computers, computer and telecommunications equipment and services, digital reprographic equipment, hardware, software, licensing and maintenance agreements, and computer peripherals is unlikely to be in the JPB’s best interest; and

2. Authorizes the procurement of technology systems equipment and related services through JPB-approved cooperative purchasing programs, including CMAS, CSSI, National IPA, WSCA, CALNET 2/3, FCCC, NJ PA, NASPO, and GSA vendors to meet its technology equipment and services requirements for FY2019 pursuant to the
terms and conditions of each vendor agreement and to the extent that each vendor agreement fully complies with JPB's statutory procurement authority and policy; and

3. Authorizes the Executive Director to utilize additional cooperative purchasing programs for FY2019 to the extent that each additional program fully complies with the JPB's statutory procurement authority and policy; and

4. Authorizes the Executive Director or his designee to enter into contracts exceeding $150,000 with vendors under the JPB-approved cooperative purchasing programs up to an aggregate, not-to-exceed, amount of $750,000 for FY2019; and

5. Authorizes the Executive Director or his designee to execute all necessary purchase orders, contracts and other documents to effectuate this resolution, including any agreements with the State of California or other agencies' programs for administrative fees for processing these purchases.

Regularly passed and adopted this 2nd day of August, 2018 by the following vote:

AYES:

NOES:

ABSENT:

______________________________
Chair, Peninsula Corridor Joint Powers Board

ATTEST:

______________________________
JPB Secretary
AGENDA ITEM #4 (n)
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Derek Hansel
Chief Financial Officer

SUBJECT: EXECUTION OF CONTRACTS OF MORE THAN $150,000 FOR INFORMATION
TECHNOLOGY LICENSE RENEWALS, MAINTENANCE SERVICES AND
PROFESSIONAL SERVICES FOR FISCAL YEAR 2019 FOR AN AGGREGATE NOT-
TO-EXCEED AMOUNT OF $750,000

ACTION
Staff Coordinating Council recommends the Board authorize the Executive Director or his
designee to enter into contracts for more than $150,000 with original equipment
manufacturers, product licensors and their distributors or consultants, directly and without
the utilization of cooperative purchasing agreements if not available or competitive
solicitations if not applicable, to procure recurring maintenance services and license
renewals necessary to permit continued effective use and upkeep of Peninsula Corridor
Joint Powers Board (JPB)-owned computer and telecommunications hardware and
software used for the management and oversight of Caltrain. The proposed action also
will apply to contracts for the provision of sole source professional services necessary to
expand or modify previously competitively procured proprietary software when an
original provider is the only source of such services. Expenditures with manufacturers and
vendors under this authority will not exceed the budgeted amount of $750,000
throughout Fiscal Year (FY) 2019.

SIGNIFICANCE
Delegation of purchase order approval authority will allow the JPB to pay for recurring
maintenance services, additional licenses, license renewal fees and professional services
for proprietary software in excess of $150,000 without bringing actions individually before
the Board for approval. This delegation would not eliminate the requirement that other
procurement policies and procedures be followed.

Recurring support and license agreements are, by their nature, repetitive and routine,
and are required to ensure continued and effective operation of information technology
assets owned by the JPB. The sole source purchase of additional modules to existing
software or professional services to modify existing proprietary software will allow the JPB’s
changing business needs to be met in a timely manner.
Delegating this authority expedites the JPB’s ability to continue needed operations and services in the management of Caltrain and reduces the time and resources otherwise required to obtain individual approval of such support and license agreements.

**BUDGET IMPACT**
Funds for these purchases are programmed in the proposed FY2019 Capital and Operating budgets.

**BACKGROUND**
Software and hardware are typically sold with licenses and maintenance agreements that require periodic renewal. Failing to renew maintenance support means loss of software updates, problems obtaining resolution assistance, and repair services typically needed to keep a product in good operating order. In some cases, the product may not be legally used if a maintenance and license renewal has not been obtained.

It is not always possible to find cooperative purchasing agreements with contracts for the necessary maintenance support and license renewals. This is particularly true for transit industry-specific information technology products. The types of licensing and maintenance agreements contemplated are generally unobtainable under any other method because they are proprietary in nature to the manufacturers of the software. Similarly, many manufacturers do not allow third parties access to source code or to provide services. As a result, professional services to upgrade, modify, or add to existing software must be performed by the original manufacturer.

JPB assets requiring payment of recurring annual or multi-year maintenance services support and license fees in excess of $150,000 that may need to be accommodated in FY2019 outside of cooperative purchase agreements or other pre-existing contracts include, but are not necessarily limited to, documentation management and collaboration software for construction and engineering management, such as:

- ARINC - $180,000
- Carahsoft - $160,000
- AT&T - $220,000

Prepared By: Carl Cubba, Director, Information Technology and Telecommunications

650.508.6206
RESOLUTION NO. 2018 -

BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA

***

AUTHORIZING EXECUTION OF CONTRACTS FOR INFORMATION TECHNOLOGY LICENSES, MAINTENANCE SERVICES AND PROFESSIONAL SERVICES FOR AN AGGREGATE NOT-TO-EXCEED AMOUNT OF $750,000 FOR FISCAL YEAR 2019

WHEREAS, the Peninsula Corridor Joint Powers Board (JPB) will require continuing product support and licenses for computer and telecommunications hardware and software throughout Fiscal Year (FY) 2019 to permit the continued effective use and upkeep of information technology assets owned by the JPB; and

WHEREAS, maintenance support and software license agreements for the information technology assets in use are, by their nature, repetitive and routine; and

WHEREAS, the JPB will also require professional services necessary to expand or modify previously competitively procured proprietary software when an original provider is the only source of such services; and

WHEREAS, Staff Coordinating Council recommends that the Executive Director or his designee be authorized to execute contracts that exceed $150,000 with original equipment manufacturers, product licensors, and their authorized distributors and consultants to meet the technology operational requirements for FY2019, pursuant to the JPB’s statutory procurement authority and policy, up to an aggregate not to exceed amount of $750,000.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Peninsula Corridor Joint Powers Board hereby takes the following actions:

1. Authorizes the procurement of product support, additional license purchases and renewal agreements for information technology assets owned by the
JPB, pursuant to the JPB’s statutory procurement authority and policy, in an aggregate not to exceed amount of $750,000 for FY2019; and

2. Authorizes the Executive Director or his designee to enter into contracts exceeding $150,000 with original equipment manufacturers, product licensors, or their authorized distributors for recurring product support and license renewals necessary to permit continued effective use and upkeep of JPB owned computer and telecommunications hardware and software; and

3. Authorizes the Executive Director or his designee to enter into contracts exceeding $150,000 with original equipment manufacturers, product licensors, or their authorized consultants for the provision of sole source professional services necessary to expand or modify previously competitively procured proprietary software when an original provider is the only source of such services; and

4. Authorizes the Executive Director or his designee to execute all necessary purchase orders, contracts and other documents and to take such other actions as may be necessary to give effect to this Resolution.

Regularly passed and adopted this 2nd day of August, 2018 by the following vote:

AYES:

NOES:

ABSENT:

______________________________
Chair, Peninsula Corridor Joint Powers Board

ATTEST:

______________________________
JPB Secretary
AGENDA ITEM # 4 (o)
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board
THROUGH: Jim Hartnett
Executive Director
FROM: April Chan            Derek Hansel
Chief Officer, Planning, Grants            Chief Financial Officer
and Transportation Authority
SUBJECT: AUTHORIZATION TO EXECUTE PROGRAM SUPPLEMENTAL AGREEMENTS FOR RECEIPT OF $3 MILLION IN TRANSIT AND INTERCITY RAIL CAPITAL PROGRAM FUNDING FOR NETWORK INTEGRATION PLANNING, AND AMEND TO INCREASE THE FISCAL YEAR 2019 CAPITAL BUDGET FROM $42,748,255 TO $45,748,255

ACTION
The Staff Coordinating Council (SCC) recommends the Board:

1. Authorize the Executive Director, or his designee, to sign Program Supplemental Agreements with the California Department of Transportation (Caltrans) to allow the Peninsula Corridor Joint Powers Board (JPB) to receive $3 million in funding from the California State Transportation Agency (CalSTA) for network integration planning; and

2. Amend to increase the Fiscal Year (FY) 2019 Capital Budget by $3 million from $42,748,255 to $45,748,255; and

3. Take any other actions that may be necessary to receive the subject funding.

SIGNIFICANCE
In May 2018, the CalSTA awarded the JPB, as part of the $164 million Transit and Intercity Rail Capital Program (TIRCP) grant, $3 million to fund network integration planning work related to the Peninsula Rail Corridor and Caltrain service area between San Francisco, San Jose and Gilroy. Some of the specific network integration planning activities to be funded by this grant will include:

- Development of regular interval schedules and connections to other transit corridors in conjunction with the development of the Caltrain Business Plan;
- Planning work associated with the San Jose Diridon Integrated Station Concept Plan, which will set a vision for the future of San Jose Diridon Station in partnership
with the Santa Clara Valley Transportation Authority, the California High Speed Rail Authority and the City of San Jose; and

- Participation in studies and analyses related to regional and statewide integrated rail network planning.

The California Transportation Commission is scheduled to approve the allocation of the $3 million at its August 2018 meeting. To receive the funds, the JPB’s Board of Directors must authorize the Executive Director, or his designee, to sign program supplemental agreements with Caltrans specifying the scope of work and schedule for the funds. The JPB previously executed a Master Agreement with Caltrans in 2017 related to the general provisions of TIRCP funding.

**BUDGET IMPACT**

The proposed amendment would increase the FY19 Capital Budget by $3 million from $42,748,255 to an authorized total of $45,748,255 as noted in Attachment B to this staff report. No matching funds are required for the network integration planning grant.

**BACKGROUND**

The goal of the TIRCP is to provide competitive grants to fund transformative capital improvements that modernize California’s intercity rail, bus, ferry, and rail transit systems to achieve the following objectives:

- Reduction in greenhouse gas emissions;
- Expand and improve rail service to increase ridership;
- Integrate the rail service of the state’s various rail operations, including integration with the high-speed rail system; and
- Improve safety.

Caltrans, in collaboration with CalSTA, is responsible for administering TIRCP funding.

Prepared By: Peter Skinner, Manager, Grants and Fund Programming 650.622.7818
Project Manager: Sebastian Petty, Senior Policy Advisor 650.622.7831
RESOLUTION NO. 2018 -
BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA

***

AUTHORIZING EXECUTION OF PROGRAM SUPPLEMENTAL AGREEMENTS TO RECEIVE $3 MILLION IN TRANSIT AND INTERCITY RAIL CAPITAL PROGRAM FUNDING FOR NETWORK INTEGRATION PLANNING, AND AMENDING TO INCREASE THE FISCAL YEAR 2019 CAPITAL BUDGET FROM $42,748,255 TO $45,748,255

WHEREAS, in May 2018, the California State Transportation agency (CalSTA) awarded the Peninsula Corridor Joint Powers Board (JPB) a $164 million Transit and Intercity Rail Capital Program (TIRCP) grant to fund various improvements to the Caltrain commuter rail system; and

WHEREAS, the TIRCP award includes $3 million of funding to address network integration planning opportunities related to the Peninsula Rail Corridor and Caltrain service area between San Francisco, San Jose and Gilroy; and

WHEREAS, the JPB has requested the California Transportation Commission (CTC) allocate the $3 million at its August 2018 meeting; and

WHEREAS, the California Department of Transportation (Caltrans), in cooperation with CalSTA, is responsible for administering the grant funding allocated by the CTC; and

WHEREAS, receipt of the grant funding will require an amendment to increase the Fiscal Year (FY) 2019 Capital Budget from $42,748,255 to an authorized total of $45,748,255; and

WHEREAS, to receive the funds, the JPB's Board of Directors must authorize the Executive Director, or his designee, to sign program supplemental agreements with Caltrans specifying the scope of work and schedule for the funds; and
WHEREAS, the Staff Coordinating Council recommends the Board of Directors:

1. Authorize the Executive Director, or his designee, to sign Program Supplemental Agreements with Caltrans to enable the JPB to receive $3 million in TIRCP funding from CalSTA for network integration planning; and

2. Amend to increase the FY 2019 Capital Budget by $3 million from $42,748,255 to $42,748,255; and

3. Authorize the Executive Director, or his designee, to take such other actions as may be necessary to receive the subject funding.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the Board of Directors of the Peninsula Corridor Joint Powers Board:

1. Authorizes the Executive Director, or his designee, to sign Program Supplemental Agreements with the California Department of Transportation to enable the Peninsula Corridor Joint Powers Board to receive $3 million in Transit and Intercity Rail Capital Program grant funds from the California State Transportation Agency for network integration planning; and

2. Amends to increase the Fiscal Year 2019 Capital Budget by $3 million from $42,748,255 to $42,748,255 as noted in Attachment B; and

3. Authorizes the Executive Director, or his designee, to take such other actions as may be necessary to receive the subject funding.

Regularly passed and adopted this 2nd day of August, 2018 by the following vote:

AYES:

NOES:
ABSENT:

Chair, Peninsula Corridor Joint Powers Board

ATTEST:

J PB Secretary
AGENDA ITEM #4 (p)  
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board

THROUGH: Jim Hartnett  
Executive Director

FROM: Derek Hansel  Carter Mau
Chief Financial Officer  Deputy General Manager/CEO

SUBJECT: AWARD OF CONTRACTS FOR ON-CALL TEMPORARY STAFFING SERVICES

ACTION
Staff Coordinating Council recommends the Board:

1. Award contracts for on-call, no-guarantee, temporary staffing services in the aggregate not-to-exceed amount of $1,950,000 for a five-year term to:

   - 22nd Century Technologies, Inc., Somerset, New Jersey
   - Accounting Principals, Inc., San Francisco, California
   - AppleOne Employment Services, San Mateo, California
   - HR Management, Inc., Oakland, California
   - Josephine's Professional Staffing, Inc., San Jose, California
   - MGO Strategic Staffing, Sacramento, California
   - SearchPros Staffing, Citrus Heights, California
   - SilverLink, Inc., San Diego, California
   - Tellus Solutions, Inc., Santa Clara, California
   - West Valley Staffing Group, Sunnyvale, California
   - Wollborg-Michelson Personnel Services, Inc., San Francisco, California

2. Authorize the Executive Director, or designee, to execute contracts with the above firms in a form reviewed and approved by legal counsel.

SIGNIFICANCE
Approval of the above actions will benefit the Peninsula Corridor Joint Powers Board (JPB) by securing multiple, qualified firms to provide on-call temporary personnel to meet a variety of administrative, financial, information technology, and light industrial business needs on a timely basis. It also will address the JPB’s needs for (1) a large number of temporary staffing firms to select from; (2) temporary staffing services that were not previously anticipated the last time these services were solicited, and (3) sufficient contract capacity to accommodate the projected level of temporary staffing support required. The JPB has previously used contracts awarded by the San Mateo County Transit District (District) to provide these services. As these contracts are for on-
call services, there is no guaranteed amount of work that will be given to any contractor.

**BUDGET IMPACT**
Funds to support the provision of temporary staffing services are included in the adopted Fiscal Year 2019 Operating Budget and will be included in future operating budgets.

**BACKGROUND**
The JPB uses qualified temporary staffing agencies to provide experienced, trained and competent temporary professional and administrative personnel. In addition to general temporary staffing support services, the JPB has a separate contract for technical recruitment services for engineers and rail specific personnel, which are typically harder to fill vacancies.

A Request for Proposals was jointly issued with the District through advertisement in a newspaper of general circulation and on the agencies’ procurement website. Solicitation notices also were sent to small business enterprises (SBEs) and disadvantaged business enterprises (DBEs) in the temporary staffing industry. Seventeen proposers submitted proposals. Staff reviewed the proposals and determined that six firms were eligible for the SBE preference.

An Evaluation Committee (Committee) composed of qualified staff from Human Resources, Bus Maintenance, and Finance reviewed and scored the proposals in accordance with the following weighted criteria:

- Approach to Scope of Services 0-20 Points
- Qualifications and Experience of Firm 0-30 Points
- Qualifications and Experience of Management Team and Key Personnel 0-30 Points
- Cost Proposal 0-20 Points
- Small Business Enterprise (SBE) Preference 0-05 Points

After review, evaluation, and initial scoring of proposals, 11 firms were determined to be in the "competitive range" and were invited for interviews. The Committee conducted a final evaluation and consensus ranking and determined that all 11 firms are qualified to be selected for contract award.

The firms possess the requisite depth of experience, have the required qualifications to successfully perform the scope of the services defined in the solicitation documents, and are fully capable of providing the specified services at fair and reasonable prices.

Procurement Administrator II: Kevin Kelley 650.622.7892
Contract Administrator: Penny Ha, Supervisor, Staffing Services 650.508.6424
RESOLUTION NO. 2018-

BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA

***

AWARDING CONTRACTS TO 22nd CENTURY TECHNOLOGIES, INC., ACCOUNTING
PRINCIPALS, INC., APPLEONE EMPLOYMENT SERVICES, HR MANAGEMENT, INC.,
JOSEPHINE’S PROFESSIONAL STAFFING, INC., MGO STRATEGIC STAFFING,
SEARCHPROS STAFFING, SILVERLINC, INC., TELLUS SOLUTIONS, INC., WEST VALLEY
STAFFING GROUP AND WOBBORG-MICHELSON PERSONNEL SERVICES, INC. FOR
ON-CALL TEMPORARY STAFFING SERVICES AT AN AGGREGATE TOTAL
NOT-TO-EXCEED AMOUNT OF $1,950,000 FOR A FIVE-YEAR TERM

WHEREAS, the Peninsula Corridor Joint Powers Board (JPB) issued a Request for
Proposals (RFP) for on-call temporary staffing services; and

WHEREAS, in response to the RFP, the JPB received a total of 17 proposals; and

WHEREAS, an Evaluation Committee (Committee) reviewed, evaluated, scored,
and ranked all of the proposals according to the evaluation criteria set forth in the RFP;
and

WHEREAS, the Committee completed its evaluation process and determined that
22nd Century Technologies, Inc., Somerset, New Jersey; Accounting Principals, Inc., San
Francisco, California; AppleOne Employment Services, San Mateo, California; HR
Management, Inc., Oakland, California; Josephine’s Professional Staffing, Inc., San Jose,
California; MGO Strategic Staffing, Sacramento, California; SearchPros Staffing, Citrus
Heights, California; Silverlinc Inc., San Diego, California; Tellus Solutions, Inc., Santa Clara
California; West Valley Staffing Group, Sunnyvale, California; and Wollborg-Michelson
Personnel Services, Inc., San Francisco, California, possess the necessary qualifications
and requisite experience to successfully perform the scope of services defined in the
solicitation documents, and are capable of providing the specified services at fair and
reasonable prices; and
WHEREAS, staff and legal counsel have reviewed the proposals and have determined that they comply with the requirements of the solicitation documents; and

WHEREAS, Staff Coordinating Council recommends, and the Executive Director concurs, that the Board of Directors award a contract to each firm for on-call temporary staffing services for an aggregate total not-to-exceed amount of $1,950,000 for a five-year term.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Peninsula Corridor Joint Powers Board hereby awards contracts for on-call temporary staffing services to 22nd Century Technologies, Inc.; Accounting Principals, Inc.; AppleOne Employment Services; HR Management, Inc.; Josephine’s Professional Staffing, Inc.; MGO Strategic Staffing; SearchPros Staffing; Silverlinc, Inc.; Tellus Solutions, Inc.; West Valley Staffing Group; and Wollborg-Michelson Personnel Services, Inc. for a five-year term for an aggregate total not-to-exceed amount of $1,950,000; and

BE IT FURTHER RESOLVED the Executive Director, or his designee, is authorized to execute contracts with each of the above firms in full conformity with all of the terms and conditions of the RFP and negotiated agreements, and in a form approved by legal counsel.

Regularly passed and adopted this 2nd day of August, 2018 by the following vote:

AYES:

NOES:

ABSENT:

Chair, Peninsula Corridor Joint Powers Board

ATTEST:

J PB Secretary
CITIZENS ADVISORY COMMITTEE (CAC)  
PENINSULA CORRIDOR JOINT POWERS BOARD (JPB)  
SAN MATEO COUNTY TRANSIT DISTRICT ADMINISTRATIVE BUILDING  
Bacciocco Auditorium, 2nd Floor  
1250 San Carlos Avenue, San Carlos CA 94070

MINUTES OF JULY 18, 2018

MEMBERS PRESENT:  C. Chang, P. Escobar, C. Tucker, R. Valenciana (Vice Chair), B. Shaw (Chair)

MEMBERS ABSENT:  L. Fernandez, L. Klein


Chair Brian Shaw called the meeting to order at 5:47 p.m. and led the Pledge of Allegiance.

APPROVAL OF MINUTES OF JUNE 20, 2018
Motion/Second: Escobar / Tucker
Ayes: Chang, Valenciana, Shaw
Absent: Fernandez, Klein

PUBLIC COMMENT
Doug DeLong, Mountain View, advised that the Transbay community meetings are coming to an end because the terminal is scheduled to open on August 12. Doug mentioned that there will be a block party on August 11 in celebration of the opening in which the public is invited to attend. Doug also mentioned that the public may sign up for tours prior to the opening. Lastly, Doug expressed his excitement for electrification and its interaction with the new Transbay Transit Center.

Roland Lebrun, San Jose, stated that his comment is in regards to capacity. He stated that Caltrain requested $3.7M of the 2016 Measure B funding from VTA. Roland advised that the proposition for Measure B states that $300M is to be used to increase capacity between San Jose and San Francisco and that $14M is to be used to provide additional service between San Jose and Gilroy. Roland asked, now that Caltrain has the funding, when to expect seven-car baby bullet trains.

CHAIRPERSON’S REPORT
Chair Brian Shaw stated he would move to the next Agenda item due to time constraints.

COMMITTEE COMMENTS
No committee comments
APPROVED FY2019 OPERATING AND CAPITAL BUDGETS

Cynthia Scarella, Manager, Budgets, presented the Approved FY2019 Operating and Capital Budgets.

Outline of Discussion

- FY 2019 Approved Operating Budget
  - Summary
  - Detail
  - Key Issues
- FY 2019 Approved Capital Budget
  - Sources and Uses
  - Capital Program

FY2019 Operating Budget Overview

| Total Revenues | $150.3M |
| Total Expenses | $151.5M |
| Deficit        | ($ 1.2M) |

Use of Reserves (in millions)

<table>
<thead>
<tr>
<th>FY2019 Budget</th>
<th></th>
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<tbody>
<tr>
<td>Total Revenue</td>
<td>150.3</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>151.5</td>
</tr>
<tr>
<td>Projected Surplus/(Deficit)/Projected Use of Revenue Stabilization Fund</td>
<td>(1.2)</td>
</tr>
<tr>
<td>Projected Unrestricted Funds, Beginning Balance</td>
<td>25.2</td>
</tr>
<tr>
<td>Establishment of Revenue Stabilization Fund (RSF)</td>
<td>(4.0)</td>
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<tr>
<td>Unrestricted Funds, Ending Balance</td>
<td>21.2</td>
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<tr>
<td>RSF, Beginning Balance</td>
<td>4.0</td>
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<tr>
<td>Projected Use FY19</td>
<td>(1.2)</td>
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<td>Projected RSF, Ending Balance</td>
<td>2.8</td>
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</table>

Total FY19 Revenues

<table>
<thead>
<tr>
<th>Revenue</th>
<th>FY2019 (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fares</td>
<td>$107.8</td>
</tr>
<tr>
<td>Parking</td>
<td>$ 5.8</td>
</tr>
<tr>
<td>Shuttles</td>
<td>$ 2.7</td>
</tr>
<tr>
<td>Rental Income</td>
<td>$ 1.9</td>
</tr>
<tr>
<td>Other Income</td>
<td>$ 1.2</td>
</tr>
<tr>
<td>AB434, TA &amp; Grants</td>
<td>$ 5.5</td>
</tr>
<tr>
<td>Member Agencies</td>
<td>$ 25.4</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>$150.3</td>
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</table>
Member Contributions (in millions)

<table>
<thead>
<tr>
<th>FY2019</th>
<th>San Mateo</th>
<th>Santa Clara</th>
<th>San Francisco</th>
<th>Total</th>
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<tr>
<td>Operating Contribution *</td>
<td>$7.6</td>
<td>$10.8</td>
<td>$7.0</td>
<td>$25.4</td>
</tr>
<tr>
<td>Allocation Formula **</td>
<td>30.0%</td>
<td>42.4%</td>
<td>27.6%</td>
<td>100.00%</td>
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</table>

Notes:
*Contributions for FY19 based on Allocation formula
**Average Weekday Boarding formula including Gilroy

Total FY19 Expenses

<table>
<thead>
<tr>
<th>EXPENSE</th>
<th>FY2019 (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TASI - Rail Op Service, PTC &amp; Other Extra Work</td>
<td>$87.4</td>
</tr>
<tr>
<td>Positive Train Control</td>
<td>$1.4</td>
</tr>
<tr>
<td>Security Services</td>
<td>$6.2</td>
</tr>
<tr>
<td>Shuttles</td>
<td>$5.4</td>
</tr>
<tr>
<td>Fuel</td>
<td>$10.8</td>
</tr>
<tr>
<td>Timetables &amp; Tickets</td>
<td>$0.2</td>
</tr>
<tr>
<td>Insurance</td>
<td>$5.8</td>
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<tr>
<td>Facilities &amp; Equip Maint.</td>
<td>$3.1</td>
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<tr>
<td>Utilities</td>
<td>$2.1</td>
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<tr>
<td>Administrative</td>
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<tr>
<td>Long Term Debt</td>
<td>$26.3</td>
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<tr>
<td><strong>Total Expenses</strong></td>
<td><strong>$151.5</strong></td>
</tr>
</tbody>
</table>

OUTLINE CAPITAL BUDGET
- Overview of the FY2019 Capital Budget
- Funding Source
- Capital Program

Overview: FY19 Capital Budget
- Capital Budget is financially constrained, based on available funding from Federal, State, Local and Member Agency commitments.
- Capital budget is funded by agency partner commitments (1/3 each).
FY19 Capital Program Funding

- **Capital Funding Requests**: $42.75M
- **Funding Sources**: $42.75M
  - FTA $13.28
  - STA-SOGR $1.25
  - STA-CAP $2.82
  - Partners $22.50
  - Other $2.90

FY19 Capital Projects

**State of Good Repairs ($36.0M)**
- ROW/Signal & Communications ($16.4M)
  - Tunnel 1 & 4 Track & Drainage Rehabilitation ($6.5M)
  - Guadalupe River Bridge ($3.0M)
  - System-wide Track ($5.5M)
- Rolling Stock ($17.0M)
  - MP36 Mid-Life Overhauls ($7.5M)
  - F40 In-Frame Overhauls ($1.3M)
  - Gallery Cars Mid-Life OH ($2.7M)
- Station & Intermodal Access ($2.6M)

**FY19 Capital Projects**

- **Legal Mandates ($1.3)**
  - Personal Credit Info Infrastructure ($0.4M)
  - Transit Asset Management ($0.6M)
  - Updated SRTP ($0.3M)
- **Operational Improvements & Enhancements ($2.0M)**
  - Backup Central Control Facility Office Remodel ($0.9M)
  - ROW Fencing ($0.5M)
  - Grade Crossing Improvements ($0.4M)
- **Planning / Studies ($3.4M)**
  - Project Development/Management ($1.0M)
  - Capital Contingency ($0.9M)
  - SF Station Corrosion, Updated Strategic Plan, Grade Crossing Policy Dev, Rail Corridor Use Policy

**Next Steps**

- Continue to work with the Board and members to study and address funding gaps for FY2020 and beyond

Member Cat Tucker referred to page 7 and asked whether the TASI expense of $87.4M includes conductors. Cynthia explained that the $87.4M provides Rail Operations: Maintenance Support, Administration, Safety Operation, Dispatch, Maintenance of Equipment, Track, Communications, Signals, Stations and Construction Support. Cat also mentioned that the Administrative expense at $26.3M also stood out and asked Cynthia how many employees are covered in that category. Cynthia said that it covers 66.3 FTE. She also said that the overhead cost is an internal cost allocation of indirect cost and that there is a formula that is audited by the Federal Government.
Vice Chair Valenciana requested the salary information for the leadership team within the 66.3 FTE mentioned in the prior comment. Cynthia said she would follow-up with that information at a later date.

Member Escobar referred to Cynthia’s presentation where she stated that 35 of 80 proposed projects were funded by FY19 budget and requested a list of those projects that were not funded. Cynthia said she will provide that information at a later date.

Chair Brian Shaw requested a list of deferred maintenance that has not been funded by FY19 budget. Cynthia said she will provide that information at a later date.

Chair Brian Shaw referred to the partner contribution: $22.5M for the Capital Program and $25.4M for the Operating Budget. Cynthia addressed the deferral question and said that the member partners increased their member contributions from $5M/each to $7.5M/each for the Capital Program and for Operating (on the aggregate), the member contributions increased by $5M total, across all 3 counties. Chair Brian Shaw asked where the Capital budget is short and whether funding sources in the past were more robust. Cynthia confirmed, and reported that the FTA funding source has decreased and that the STA funding source includes the SB1 grant that is at risk. Chair Brian Shaw advised that it is important to put everything into context to tell the complete story.

Public comment:
Jeff Carter, Millbrae, appreciates the increased funding from the member partners/three counties which improved the deficit and in turn, did not impact fares and service. Jeff Carter addressed Cat’s earlier question regarding operating expenses and said that TASI expense includes conductors and maintenance and that the administrative expense includes the administrative staff at the JPB Agency.

Roland Lebrun, San Jose, stated that all of the budget questions can be answered by reviewing last month’s board meeting packet. He stated that Board Members do not receive pay, however do receive expense reimbursements. In regards to fuel, Roland stated that the math does not add up because $4.2M at $2.10 per gallon is $8.8M, not $10.8M. He then stated that the administration overhead is essentially Samtrans contribution to Operations. Roland stated that he wrote a letter to the Board which is included in the b-pack packet, which explains $125M was removed from the 1st electrification agreement, and reserved for SOGR-State of Good Repair. He said that in addition he found $175M in the MTC bucket called TIP- transportation improvement program and that all of those funds are being used for the Hillsdale project. He stated that the problem with that is that the Hillsdale project was already funded and that those funds are gone. He stated that he will write another letter to the board with this information and request they take a closer look at his concerns.

2018 ANNUAL PASSENGER COUNTS
Catherine David, Principal Planner, presented the 2018 Annual Passenger Counts. She started the presentation with introducing Yu Hanakura the new Senior Planner. Catherine indicated that he helped with the analysis and presentation of the annual passenger counts.
Catherine advised that the Annual count was being presented to the CAC prior to it being presented to the board and welcomed comments and feedback.

Presentation Outline
- Purpose of Annual Count
- Count Methodology
- 2018 Challenges
- 2018 Count Results
  - Weekday
  - Weekend
- Summary
- Next Steps

Purpose of Ridership Counts
- Provide a measurement relative to previous years
- Data for evaluating service changes
  - Identify trends: station, time, train, direction
- Allocate resources to address capacity issues
- Validate revenue-based ridership estimates
- Data for future capacity planning

Data Collection Methodology
- Headcount on every weekday train averaged over 2 mid-weekdays
- Headcount on every weekend train for one weekend
- Differs from other ridership counts:
  - Monthly revenue-based average weekday ridership calculations
  - Identify ridership based on randomized samplings for National Transit Database (NTD)
- Seventh year for “bikes denied boarding” count

New Weekday Count Methodology
- Reason: Increasing project costs & budget constraints (~ savings $400K - $500K+)
- Good opportunity to revisit methodology
- This year: Average of 2 mid-weekday counts (Tue, Wed, Thur)
  - “Average Mid-Weekday Ridership” (AMWR)
  - “Average Mid-Weekday Bike Ridership” (AMWBR)
  - Capture true maximum load
    - Mid-Weekday = busier
    - Mon. & Frı. = lighter (-1% on Mon. and -9% on Frı.)
- “Apples-to-Apples” Comparison
  - All data comparisons between: 2018 Average Mid-Weekday Ridership & 2017 Average Mid-Weekday Ridership
  - 2017 Survey: Extract Tues - Thurs data to generate mid-weekday average data
  - For year-to-year comparison/trending purposes only
Challenges
- New weekday count methodology
- New sub-consultant team to conduct, oversee & manage field surveys under Rail Operator Contract
- Survey in mixed-fleet environment
  - Consist length (5 cars or 6 cars)
  - Different # of doors per car (Gallery or Bombardier)
- Timetable changes after 2017 Annual Count
  - Impacts baseline data used for planning & special event service comparisons

Timetable Changes
- Weekdays (eff. 4/10/2017)
  - Adjustments to support the electrification project construction work windows
  - Time adjustments for increased reliability
  - Stops added/reduced to selected trains
  - AM SB trains sequence change
- Weekends (eff. 7/15/2017)
  - Service reduction to support the electrification project construction work windows
    - From 60-min frequency to 90-min frequency
- Weekdays (eff. 10/1/2017)
  - Adjustments to enhance operations efficiency

Average (Mid-) Weekday Ridership
- 1.5% AMWR Increase
Riders by Time Period: 2017 vs. 2018

<table>
<thead>
<tr>
<th></th>
<th>2017 92 Trains (AMWR)</th>
<th>2018 92 Trains (AMWR)</th>
<th>Difference</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Traditional Peak</strong></td>
<td>33,548</td>
<td>34,373</td>
<td>825</td>
<td>2.5%</td>
</tr>
<tr>
<td><strong>Midday</strong></td>
<td>7,316</td>
<td>6,642</td>
<td>-674</td>
<td>-9.2%</td>
</tr>
<tr>
<td><strong>Reverse Peak</strong></td>
<td>19,736</td>
<td>20,745</td>
<td>1,009</td>
<td>5.1%</td>
</tr>
<tr>
<td><strong>Night</strong></td>
<td>3,514</td>
<td>3,335</td>
<td>-179</td>
<td>-5.8%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>64,114</td>
<td>65,095</td>
<td>981</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

2018 Station Ridership (AMWR)

- Weekday ridership increased at 18 stations (’17 vs. ’18)

<table>
<thead>
<tr>
<th>Station</th>
<th>Increase (%)</th>
<th>Ridership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hayward Park</td>
<td>51.2%</td>
<td>197</td>
</tr>
<tr>
<td>Gilroy</td>
<td>22.7%</td>
<td>47</td>
</tr>
<tr>
<td>22nd Street</td>
<td>11.5%</td>
<td>205</td>
</tr>
<tr>
<td>San Mateo</td>
<td>7.0%</td>
<td>149</td>
</tr>
<tr>
<td>Hillsdale</td>
<td>6.1%</td>
<td>185</td>
</tr>
<tr>
<td>Burlingame</td>
<td>1.4%</td>
<td>15</td>
</tr>
<tr>
<td>College Park</td>
<td>34.1%</td>
<td>28</td>
</tr>
<tr>
<td>Capitol</td>
<td>19.4%</td>
<td>13</td>
</tr>
<tr>
<td>Morgan Hill</td>
<td>11.3%</td>
<td>24</td>
</tr>
<tr>
<td>Redwood City</td>
<td>6.9%</td>
<td>270</td>
</tr>
<tr>
<td>San Bruno</td>
<td>1.9%</td>
<td>13</td>
</tr>
<tr>
<td>San Jose</td>
<td>1.3%</td>
<td>61</td>
</tr>
<tr>
<td>San Jose</td>
<td>1.3%</td>
<td>61</td>
</tr>
<tr>
<td>Belmont</td>
<td>30.1%</td>
<td>181</td>
</tr>
<tr>
<td>Blossom Hill</td>
<td>14.1%</td>
<td>18</td>
</tr>
<tr>
<td>San Martin</td>
<td>7.4%</td>
<td>6</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>6.1%</td>
<td>63</td>
</tr>
<tr>
<td>Palo Alto</td>
<td>1.6%</td>
<td>123</td>
</tr>
<tr>
<td>Mountain View</td>
<td>0.8%</td>
<td>37</td>
</tr>
</tbody>
</table>

- Weekday ridership decreased at 11 stations (’17 vs. ’18)

<table>
<thead>
<tr>
<th>Station</th>
<th>Decrease (%)</th>
<th>Ridership</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSF</td>
<td>-8.9%</td>
<td>-46</td>
</tr>
<tr>
<td>Tamien</td>
<td>-3.0%</td>
<td>-40</td>
</tr>
<tr>
<td>Sunnyvale</td>
<td>-1.6%</td>
<td>-55</td>
</tr>
<tr>
<td>Bayshore</td>
<td>-0.5%</td>
<td>-1</td>
</tr>
<tr>
<td>Menlo Park</td>
<td>-4.1%</td>
<td>-73</td>
</tr>
<tr>
<td>Millbrae</td>
<td>-2.9%</td>
<td>-102</td>
</tr>
<tr>
<td>San Francisco</td>
<td>-1.5%</td>
<td>-239</td>
</tr>
<tr>
<td>San Carlos</td>
<td>-0.2%</td>
<td>-3</td>
</tr>
<tr>
<td>California Ave.</td>
<td>-3.7%</td>
<td>-65</td>
</tr>
<tr>
<td>Lawrence</td>
<td>-1.9%</td>
<td>-18</td>
</tr>
<tr>
<td>San Antonio</td>
<td>-1.2%</td>
<td>-12</td>
</tr>
</tbody>
</table>
### Top 10 Stations (Weekday Boardings)

<table>
<thead>
<tr>
<th>County</th>
<th>2017 AMWR</th>
<th>2018 AMWR</th>
<th>Difference '17 vs. '18</th>
<th>%Change '17 vs. '18</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Francisco</td>
<td>17,686 (27.6%)</td>
<td>17,651 (27.1%)</td>
<td>-36</td>
<td>-0.2%</td>
</tr>
<tr>
<td>San Mateo</td>
<td>18,970 (29.6%)</td>
<td>19,757 (30.4%)</td>
<td>787</td>
<td>4.1%</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>27,458 (42.8%)</td>
<td>27,688 (42.5%)</td>
<td>229</td>
<td>0.8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>64,114</td>
<td>65,095</td>
<td>980</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

**Note:** Menlo Park was the 10th busiest station by average mid-weekday boarding volume in 2017.

### County-by-county Comparison
- Ridership change vary by county

<table>
<thead>
<tr>
<th>County</th>
<th>2017 AMWR</th>
<th>2018 AMWR</th>
<th>Difference '17 vs. '18</th>
<th>%Change '17 vs. '18</th>
</tr>
</thead>
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<td>-0.2%</td>
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<td>0.8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>64,114</td>
<td>65,095</td>
<td>980</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Percentage in parentheses = percentage of boardings in each county over total boardings.
2018 Busiest NB Trains: Max Load
- 11 trains at ≥ 95% of seated capacity at max. load point

<table>
<thead>
<tr>
<th>Train Number</th>
<th>Depart SJ</th>
<th>As Leaving</th>
<th>Max Load (Based on AMWR)</th>
<th>Train Capacity</th>
<th>Percent of Seated Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>g</td>
<td>221</td>
<td>7:23 AM</td>
<td>Mountain View</td>
<td>845</td>
<td>650</td>
</tr>
<tr>
<td>b</td>
<td>329</td>
<td>8:04 AM</td>
<td>Sunnyvale</td>
<td>968</td>
<td>760</td>
</tr>
<tr>
<td>g</td>
<td>217</td>
<td>6:59 AM</td>
<td>Hillsdale</td>
<td>950</td>
<td>760</td>
</tr>
<tr>
<td></td>
<td>215</td>
<td>6:54 AM</td>
<td>San Bruno</td>
<td>810</td>
<td>650</td>
</tr>
<tr>
<td></td>
<td>225</td>
<td>7:54 AM</td>
<td>San Bruno</td>
<td>943</td>
<td>760</td>
</tr>
<tr>
<td>b</td>
<td>319</td>
<td>7:04 AM</td>
<td>Sunnyvale</td>
<td>936</td>
<td>760</td>
</tr>
<tr>
<td></td>
<td>227</td>
<td>7:59 AM</td>
<td>Hillsdale</td>
<td>790</td>
<td>650</td>
</tr>
<tr>
<td>b</td>
<td>323</td>
<td>7:49 AM</td>
<td>Mountain View</td>
<td>894</td>
<td>760</td>
</tr>
<tr>
<td>b</td>
<td>313</td>
<td>6:49 AM</td>
<td>Hillsdale</td>
<td>822</td>
<td>760</td>
</tr>
<tr>
<td></td>
<td>269</td>
<td>4:40 PM</td>
<td>Redwood City</td>
<td>773</td>
<td>760</td>
</tr>
<tr>
<td></td>
<td>233</td>
<td>8:39 AM</td>
<td>San Antonio</td>
<td>772</td>
<td>760</td>
</tr>
</tbody>
</table>

*b = Baby Bullet; g = Gilroy train;
Light yellow = AM ("traditional peak"); Light blue = PM ("reverse peak")

2018 Busiest SB Trains: Max Load
- 14 trains at ≥ 95% of seated capacity at max. load point
### Southbound

<table>
<thead>
<tr>
<th>Train Number</th>
<th>Depart SF</th>
<th>As Leaving</th>
<th>Max Load (Based on AMWR)</th>
<th>Train Capacity</th>
<th>Percent of Seated Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>366</td>
<td>Palo Alto</td>
<td>1,066</td>
<td>760</td>
<td>140%</td>
</tr>
<tr>
<td>b</td>
<td>376</td>
<td>Millbrae</td>
<td>952</td>
<td>760</td>
<td>125%</td>
</tr>
<tr>
<td>b</td>
<td>324</td>
<td>Millbrae</td>
<td>898</td>
<td>760</td>
<td>118%</td>
</tr>
<tr>
<td>g</td>
<td>360</td>
<td>Palo Alto</td>
<td>767</td>
<td>650</td>
<td>118%</td>
</tr>
<tr>
<td>g</td>
<td>278</td>
<td>Millbrae</td>
<td>885</td>
<td>760</td>
<td>116%</td>
</tr>
<tr>
<td>g</td>
<td>268</td>
<td>California Ave.</td>
<td>853</td>
<td>760</td>
<td>112%</td>
</tr>
<tr>
<td>g</td>
<td>330</td>
<td>Millbrae</td>
<td>712</td>
<td>650</td>
<td>110%</td>
</tr>
<tr>
<td>b</td>
<td>370</td>
<td>Millbrae</td>
<td>823</td>
<td>760</td>
<td>108%</td>
</tr>
<tr>
<td>b</td>
<td>272</td>
<td>San Francisco</td>
<td>822</td>
<td>760</td>
<td>108%</td>
</tr>
<tr>
<td>b</td>
<td>262</td>
<td>California Ave.</td>
<td>692</td>
<td>650</td>
<td>106%</td>
</tr>
<tr>
<td>b</td>
<td>258</td>
<td>California Ave.</td>
<td>679</td>
<td>650</td>
<td>104%</td>
</tr>
<tr>
<td>b</td>
<td>380</td>
<td>San Francisco</td>
<td>678</td>
<td>650</td>
<td>104%</td>
</tr>
<tr>
<td>b</td>
<td>222</td>
<td>Redwood City</td>
<td>633</td>
<td>650</td>
<td>97%</td>
</tr>
<tr>
<td>b</td>
<td>314</td>
<td>Hillsdale</td>
<td>632</td>
<td>650</td>
<td>97%</td>
</tr>
</tbody>
</table>

*b = Baby Bullet; g = Gilroy train;  
Light yellow = AM (‘reverse peak’); Light blue = PM (‘traditional peak’)*

### Peak Period Boarding/Alighting Traditional Peak Direction (AM NB)

![Graph showing boarding and alighting numbers for AM NB]

### Peak Period Boarding/Alighting Reverse Peak Direction (AM SB)

![Graph showing boarding and alighting numbers for AM SB]
Gilroy Avg. (Mid-) Weekday Ridership
- 15.4% AMWR increase
Gilroy Extension Ridership

- 2001: Highest ridership (1,555 AWR)
  - Increased during Dot-Com Boom
- 2010: Lowest ridership (323 AWR)
  - Ridership declined sharply after Dot-Com bust and US 101 Fwy. Widening
- 2011-2017: Ridership steadily increased
- 2018: 15.4% AMWR increase
  - Begin planning with VTA in concert with the business plan

2018 Riders per Train Type

- Peak-period (AM + PM) average ridership per train type

<table>
<thead>
<tr>
<th>Train Type</th>
<th>2017 (AMWR)</th>
<th>2018 (AMWR)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby Bullet</td>
<td>904</td>
<td>914</td>
<td>1.1%</td>
</tr>
<tr>
<td>Limited</td>
<td>814</td>
<td>856</td>
<td>5.1%</td>
</tr>
<tr>
<td>Local</td>
<td>351</td>
<td>412</td>
<td>17.5%</td>
</tr>
</tbody>
</table>

- Growth on all train types
- More growth on slower train types

Average Passenger Trip Length

- Weekday average trip length for 2018 is slightly lower than 2017
### Average Trip Length (mi)

<table>
<thead>
<tr>
<th>Train Type</th>
<th>2017 (AMWR-Based)</th>
<th>2018 (AMWR-Based)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday</td>
<td>23.4</td>
<td>22.9</td>
</tr>
<tr>
<td>Baby Bullet</td>
<td>28.3</td>
<td>27.5</td>
</tr>
<tr>
<td>Peak Limited &amp; Locals</td>
<td>20.9</td>
<td>20.8</td>
</tr>
<tr>
<td>Off Peak</td>
<td>21.9</td>
<td>21.5</td>
</tr>
<tr>
<td>All Locals</td>
<td>21.6</td>
<td>21.0</td>
</tr>
</tbody>
</table>

**Avg. (Mid-) Weekday Bike Ridership**
- 6.0% AMWBR increase

---

#### Weekday Bicycle Boardings
- Top 10 Stations
### Station Boardings

<table>
<thead>
<tr>
<th>Station</th>
<th>2017 Rank</th>
<th>AMWBR</th>
<th>2018 Rank</th>
<th>AMWBR</th>
<th>Change (2017 to 2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Francisco</td>
<td>1</td>
<td>1,240</td>
<td>1</td>
<td>1,442</td>
<td>202 16.3%</td>
</tr>
<tr>
<td>Palo Alto</td>
<td>2</td>
<td>765</td>
<td>2</td>
<td>796</td>
<td>31 4.0%</td>
</tr>
<tr>
<td>Mountain View</td>
<td>3</td>
<td>470</td>
<td>3</td>
<td>551</td>
<td>81 17.2%</td>
</tr>
<tr>
<td>Redwood City</td>
<td>4</td>
<td>341</td>
<td>4</td>
<td>407</td>
<td>66 19.2%</td>
</tr>
<tr>
<td>San Jose Diridon</td>
<td>5</td>
<td>324</td>
<td>5</td>
<td>359</td>
<td>35 10.8%</td>
</tr>
<tr>
<td>Sunnyvale</td>
<td>6</td>
<td>275</td>
<td>6</td>
<td>303</td>
<td>29 10.5%</td>
</tr>
<tr>
<td>Hillsdale</td>
<td>7</td>
<td>247</td>
<td>7</td>
<td>257</td>
<td>10 4.0%</td>
</tr>
<tr>
<td>22nd Street</td>
<td>8</td>
<td>218</td>
<td>8</td>
<td>251</td>
<td>33 15.0%</td>
</tr>
<tr>
<td>California Ave.</td>
<td>9</td>
<td>212</td>
<td>9</td>
<td>225</td>
<td>13 6.0%</td>
</tr>
<tr>
<td>San Mateo</td>
<td>10</td>
<td>164</td>
<td>10</td>
<td>218</td>
<td>54 33.2%</td>
</tr>
</tbody>
</table>

#### Bikes Denied Boardings
- Seventh year counted with annual count
- 21 bumps (2018) vs. 87 (2017)
- 2018: 21 bikes denied on 236 trains counted
- 2017: 87 bikes denied on 527 trains counted
- Equiv. comparison: Bumps observed per 1,000 bikes boarded decreased to 1.6 (3.2 in 2017)
- Observed at 6 stations, 2 trains (all NB; no SB)
- No bumps observed on weekend trains

#### Passenger Needing Assistance (PNA) Boardings: Weekdays
- 2018 Survey
  - 69 PNA boardings
  - 35 PNA boardings per mid-weekday
- PNA boardings on 45 trains of 92 scheduled trains during count

#### Weekend Service
- First passenger count after reduced weekend local service: from 60-min to 90-min frequency
- Saturday: from 36 trains to 28 trains (22% reduction)
- Sunday: from 32 trains to 24 trains (25% reduction)

#### Weekend-Only Station Boardings (Sat. + Sun.)
- Corridor-Wide Boardings
Passenger 2017 2018 Numeric Difference Percent Change
--- --- --- --- ---
Saturday 15,612 13,954 -1,658 -10.6%
Sunday 11,274 9,636 -1,638 -14.5%
TOTAL 26,886 23,590 -3,296 -12.3%

- Weekend Service Passenger Boardings

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>Change</th>
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<tbody>
<tr>
<td>Broadway</td>
<td>166</td>
<td>114</td>
<td>-31.3%</td>
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<tr>
<td>Atherton</td>
<td>154</td>
<td>114</td>
<td>-26.0%</td>
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Weekend Service 5 Busiest Trains (Northbound)

- By Passenger Boardings:

<table>
<thead>
<tr>
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<th>Sunday</th>
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<tbody>
<tr>
<td>Train Number</td>
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<td>Passenger Boardings</td>
</tr>
<tr>
<td>427</td>
<td>11:38 AM</td>
<td>828</td>
</tr>
<tr>
<td>429</td>
<td>1:08 PM</td>
<td>816</td>
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<tr>
<td>b</td>
<td>801</td>
<td>9:51 AM</td>
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<tr>
<td>431</td>
<td>2:38 PM</td>
<td>723</td>
</tr>
<tr>
<td>433</td>
<td>4:08 PM</td>
<td>623</td>
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</table>

b = Baby Bullet Express

- By Maximum Passenger Load:

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<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Train Number</td>
<td>Depart SJ</td>
<td>As Leaving</td>
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<tr>
<td>b</td>
<td>801</td>
<td>9:51 AM</td>
</tr>
<tr>
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<td>11:38 AM</td>
<td>Broadway</td>
</tr>
<tr>
<td>429</td>
<td>1:08 PM</td>
<td>San Mateo</td>
</tr>
<tr>
<td>431</td>
<td>2:38 PM</td>
<td>San Mateo</td>
</tr>
<tr>
<td>b</td>
<td>803</td>
<td>5:21 PM</td>
</tr>
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Weekend Service 5 Busiest Trains (Southbound)

- By Passenger Boardings:

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<tr>
<td>Train Number</td>
<td>Depart SF</td>
<td>Passenger Boardings</td>
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<tr>
<td>434</td>
<td>5:07 PM</td>
<td>954</td>
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<td>432</td>
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<td>580</td>
</tr>
<tr>
<td>440</td>
<td>9:37 PM</td>
<td>489</td>
</tr>
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</table>

b = Baby Bullet Express

- By Maximum Passenger Load:
Summary

- Change of Weekday Count Methodology
  - AWR to AMWR
  - AWBR to AMWBR
- Average (Mid-) Weekday Ridership increased during peak periods
- Gilroy (Mid-) Weekday Passenger Ridership increased
- Average (Mid-) Weekday Bike Ridership increased but “bumps” observed significantly decreased
- Overall Weekend Passenger Ridership decreased but not proportionally to decreased service level (-10 to -14% boardings from 22 to 25% fewer trains)

Next Steps

- Incorporate data with Caltrain Business Plan efforts to strategize for future scheduling and passenger capacity on the new EMU fleet
- Planning for future Annual Counts Methodology
  - 2019 Annual Count:
    - SF Tunnels Weekend Construction Shutdown & Bus Bridge: SF - Bayshore Stations
    - Remove Hillsdale Station Stops & Replace with Belmont Station Stops
  - Using AMWR & AMWBR for all counts moving forward
  - Automatic Passenger Counters (APCs) on EMUs

For additional information Key Findings Report & raw data (excel) posted by September to: http://www.caltrain.com/about/statsandreports/Ridership.html

Chair Brian Shaw asked whether it makes sense for Caltrain to emulate Smart Train, which runs in Sonoma and Marin, and be a Clipper only system as this may help with passenger counts. Chair Shaw said that it may eliminate current challenges with manually counting passengers on the train and may also save Caltrain money. Joe Navarro, Deputy Chief, Rail Operations, advised that by making Caltrain a Clipper only system, it may violate Title VI and would need to look further into that option, however Joe said that the new EMU’s will have automatic counters that will count both passengers and bicycles. Joe also mentioned that he is looking into obtaining people counters at 4th & King Platform entryways. Chair Brian Shaw mentioned that the
automated counters may not track passenger O&D – Origin and Destination information that may help with future planning.

Member Cat Tucker commented that more Gilroy service would be beneficial not only on weekdays, but also on weekends as there is still heavy traffic on 101, during the weekends.

Vice Chair Ricardo Valenciana asked when in the day does peak time end and when does lower ridership begin. Catherine advised that Caltrain’s peak ridership starts at the start of the service day and any trains leaving their starting station before 9am. She also explained that for PM peak, it starts at 3pm and all trains departing their starting station before 7pm. Any trains leaving their starting station between 9am and 3pm are considered midday ridership and any trains leaving after 7pm is considered evening ridership.

Public comment:
Jeff Carter, Millbrae, appreciated the “apples to apples” comparison as it was a concern of his. Jeff asked staff to further explain randomized counts for the NTD. Jeff also expressed appreciation for the future evaluation of revenue based comparison to passenger counts as when he calculates the monthly average weekday ridership multiplied by the number of weekdays and subtracts that from the total ridership, the weekend ridership adds up to 30k people per weekend day which does not match the weekend annual counts. Jeff requested raw data breakdown drilling deeper than the average and would like to see the data broken down by day. He also said that he looks forward to the new EMU passenger counter to include Monday and Friday trends. Lastly, he suggested station to station fare pricing to determine passenger Origin and Destination.

Roland Lebrun, San Jose, acknowledged Catherine David’s efforts for providing the best passenger count presentation he has ever seen. He said that the report includes a lot of detailed information and asked staff why the presentation was not uploaded to the website three days ago. He said that it did not give the committee or members of the public time to review and prepare questions. Roland then explained that in Europe a train is considered at capacity when 90% of the seats are occupied. Roland expressed his concern regarding capacity as Caltrain already experiences 130% capacity with 730 seats and asked how Caltrain EMUs will handle this occupancy with 550 seats. Roland said that Caltrain will lose ridership with the capacity issues it will face. Roland also commented on the low increase in ridership at the Blossom Hill station. He said that even with the increase in population with the construction of 4,000 units and other construction projects the ridership did not increase. Roland stated that the reason for the low increase is due to Blossom Hill not an easy station to use because of parking. In regards to Clipper, Roland agrees to transfer all of the Go passes to Clipper cards. He then stated that passenger counters need to be on the new EMUs as MUNI and VTA have them. He said that it is important to know where passengers board and get off the train.
Drew, San Mateo, provided feedback and advised that he views Caltrain as bidirectional and gets confused when Caltrain uses terms like “traditional” and “reverse” instead of terms like “northbound peak” and “southbound peak”. His suggestion is to keep it directional as it is easier to understand. He also suggested adding “total over two days” on the PNA slide. Drew also commented on the future Hillsdale station closure and although the plan is to have Belmont service Hillsdale passengers, he suggests that Hayward Park may end up being passenger’s alternative to the Hillsdale station. He said he brings this up here as it may affect future passenger counts. Lastly, he encourages staff to revisit peak hour windows and suggests the window be based on ridership data.

**STAFF REPORT UPDATE**

Joe Navarro, Deputy Chief, Rail Operations, reported:

- **Wi-Fi Update** - On April 26, the California State Transportation Agency announced a $164.5 million investment from the Transit and Intercity Rail Capital Program to support Caltrain service improvements including the replacement of Caltrain’s diesel fleet with high-performance electric trains, and the addition of Wi-Fi service onboard the system’s new electric fleet. Staff will schedule a Wi-Fi update on the CAC work plan schedule accordingly.

- **ROUTE SFO** - Caltrain SFO Connection - On Sunday June 24, 2018, SamTrans launched direct bus service from the Millbrae Transit Center (Caltrain and BART) to terminal stops at San Francisco International Airport including International Courtyard A, Terminal 2, Terminal 3 and International Courtyard G. All buses have additional luggage racks. There were free promotional rides between June 24 and July 7. After the free promotion, the regular fares apply (Cash Only: $2.25 for adults! $1.00 for Seniors and Youth). For more info visit: http://www.samtrans.com/schedulesandmaps/timetables/Route_SFO.html

**On-time Performance (OTP)** -

- **June**: The June 2018 OTP was 91.9% compared to 94.5% for June 2017.
  - **Mechanical Delays** - In June 2018 there were 905 minutes of delay due to mechanical issues compared to 523 minutes in June 2017.
  - **Trespasser Strike** - There was one trespasser strike on June 2, resulting in a fatality.

- **May**: The May 2018 OTP was 94.5% compared to 94.2% for May 2017

- **Fiscal Year 2018** - FY2018 OTP ended at 94.3%
Special Event Train Service -

- **Services Performed:**

  - **Giants Baseball** - The Giants hosted 16 regular season home games in June. Total additional riders alighting and boarding at San Francisco station, was 95,524. Year-to-date pre and regular season ridership, alighting and boarding at San Francisco station, was 240,185, a 19 percent decrease compared to the same number of games in 2017.

  - **Gay Pride Parade & Festival** - On Sunday, June 24, Caltrain provided two special northbound express trains departing from San Jose for riders headed to the Gay Pride parade and festival in downtown San Francisco. Along with operating Giants Service for the 1:05 p.m. home game the same day, extra capacity service post-parade and festival to accommodate crowds. Total additional riders boarding and alighting at San Francisco station was 10,433, a 17 percent increase from 2017.

  - **San Jose Earthquakes at Stanford Stadium** - On Saturday, June 30, at 6:45 p.m., the San Jose Earthquakes soccer team hosted the Los Angeles Galaxy at Stanford Stadium. Caltrain made stops at Stanford Stadium before and after the game (6 pre-game trains and 5 post-game trains, 2 less than in 2017). Total riders alighting and boarding at Stanford Stadium station was 1,158, a 34 percent decrease in ridership compared to 2017. The 2017 game was held prior to the reduced weekend service change.

  - **Independence Day Holiday Service & SF Fireworks Service** - On Wednesday, July 4, Caltrain operated a Sunday schedule in observance of the Independence Day holiday. Caltrain also provided three extra post-SF fireworks train to accommodate the additional crowds.

**Fare Enforcement**

Caltrain began testing its new fare enforcement policy. The new policy will give fare evaders administrative citations instead of criminal citations that require a court visit, reducing fines and speeding up the process. Citations will only be warnings until July 25, at which point fare evaders will be fined.

**Platform Signage**

During construction, station platforms may need to be closed within the designated work segment which forces both Northbound and Southbound passengers to board on one side of the platform. Static signs are stationed on the platforms advising passengers to “look up and listen”. The Visual Messaging System and audible station announcements reflect boarding instructions for passenger’s respective train. The Visual Messaging System now reads “Platform Closed” on the closed platform and minimizes confusion.
Capital Projects

- F-40 Locomotive Mid-Life Overhaul Project: Perform mid-life overhaul of three F40PH2C locomotives. The mid-life overhaul of the locomotives shall include complete disassembly of the main diesel engine, overhauling by reconditioning re-usable main frame components and re-assembly with new engine components and replacement of the Separate Head-End Power (SEP-HEP) unit and all electrical components of the SEP-HEP compartment. All areas of the locomotive car body, trucks, wheels and electrical components shall be reconditioned to like-new condition or replaced with new material. The work shall be completed off-site at contractor’s (Motive Power) facility location at Boise, Idaho. The three locomotives are Locomotive #’s 920, 921 and 922.

Locomotives #’s 920 and 921 were shipped to the vendor’s facility in February and March. Both locomotives are still undergoing overhaul and are expected to be returned to the CEMOF facility in San Jose in August for Final Acceptance testing. Locomotive #922 is scheduled to be shipped to the vendor’s facility by the end of June and the forecast date for return is January 2019 for Final Acceptance testing.

- MP-36 Locomotive Mid-Life Overhaul Project: Perform mid-life overhaul of six MP-36-3C Locomotives. The mid-life overhaul of the locomotives shall include complete disassembly of the main diesel engine, overhauling by reconditioning re-usable main frame components and re-assembly with new engine components and the replacement of the Separate Head-End Power (SEP-HEP) unit and all electrical components of the SEP-HEP compartment. All areas of the locomotive car body, trucks, wheels and electrical components shall be reconditioned to like-new condition or replaced with new material. The project work shall be completed off-site at the contractor’s facility location. The six locomotives are Locomotive #’s 923, 924, 925, 926, 927 and 928.

Technical specifications for the work were completed in February 2018. The Request for Proposal was advertised on June 12, 2018. Award of the contract is currently forecast for late 2018 and overall completion of the work in fall 2020.

Joe Navarro reported that originally there was an increased budget to rebuild the blended fleet after Electrification for the Gallery and Bombardier cars. The budget has since been cut significantly.

Grade Crossing Improvements

The city of Palo Alto put a new camera system at the four grade crossings in Palo Alto. Staff is looking to have a presentation made to this committee with further details. Joe reported that this new system will be able to detect a vehicle on the tracks and communicate with dispatch to possibly stop trains. This new system will not be implemented until, approximately, a month from now. At that time Staff will receive reports of the number of cars that have stopped on the tracks.
Member Cat Tucker asked whether there is a taskforce in place to review the blended fleet rebuild budget cuts and whether they are actively looking for grants to fund this project. Joe advised that there were different reasons for the cuts, some were due to construction projects and others were due to funding constraints.

**Public Comment**
Roland Lebrun, San Jose, addressed the Chair and stated that the reason the Bombardier and Gallery cars are being refurbished is because the new EMUs will not provide the capacity that will be needed to support ridership upon electrification. Additionally he asked whether the 6 or 7 car Bombardier and Gallery trains will travel to the new Transbay Center and if so, asked how the trains will get pulled because diesel fuel will not be able to be used there. He stated that these are things to consider and to look for in the Business Plan.

Adrian Brandt, Redwood City, asked for clarification regarding the Transit improvement grant. He stated that there are other components other than Wi-Fi included in that grant i.e. platform lengthening and 100% 8-car EMUs. He requested staff to clarify guidelines around all components of this grant. Joe Navarro stated that he did not have the list of guidelines for all components of the grant at this time and expects them to be outlined in the business plan once identified. Chair Brian Shaw advised that once the guidelines are clarified by the State, staff will have a better understanding and plan for all components included in the grant. Adrian then asked whether staff can confirm what parts of the grant have been awarded and what parts are in jeopardy. Joe Navarro explained that he did not have an answer for him at this time and he will look into bringing someone from a different department to answer those questions at the next meeting. Chair Brian Shaw advised that the SB1 grant is in jeopardy and will be on the November ballot to be repealed.

**JPB CAC Work Plan Update**
Chair Brian Shaw explained that the Work Plan is tentative and can be changed if necessary. Brian also advised that the Chair and the Vice Chair meet with the Deputy Chief of Rail Operations approximately two weeks prior to the CAC meeting to finalize an Agenda which is built from of the Work Plan. The items on the Work Plan help provide Agenda items for the CAC meetings. There are also other items that are required to be presented at the CAC for example, today’s presentations. Work Plan items come from committee members and are adjusted depending on staff’s bandwidth and ability to present on those topics. Brian also welcomed committee members to add to the Work Plan.

Member Cat requested to add SB1 grant impact to November.

The tentatively scheduled topics are as follows:
August 15, 2018
- Visual Messaging System Station Signage
- Suicide Awareness Prevention
- Business Plan Update
September 19, 2018
- Wi-Fi Update
- Tunnel Notching Project
- Station Toolbox

October 17, 2018
- Grade Crossings Improvement
- Camera System

November 21, 2018
- Proof of Payment

Items to be scheduled
- Station Management Plan (getting to stations, capacity, usage, forecast, and planning) - requested by chair 3/2/16, modified 3/16/16 by Adina
- Schedule Audit - requested on 3/6/18 by Member Lauren Fernandez

Public Comment
Drew, San Mateo, suggested adding an item to the Work Plan. He attended a community meeting, doesn’t recall which one, where they demonstrated an app that includes Caltrain routing information and he encourages staff to look into this.

Roland Lebrun, San Jose, advised that the budget was approved in June and is usually posted to the Caltrain website within a few days. He stated that this year, the budget was approved months ago and still has not been posted to the website. He requested staff to look further into this matter.

DATE, TIME AND LOCATION OF NEXT REGULAR MEETING:
August 15, 2018 at 5:40 p.m., San Mateo County Transit District Administrative Building, 2nd Floor Bacciocco Auditorium, 1250 San Carlos Avenue, San Carlos, CA.

Adjourned at 7:17 pm
Date: July 20, 2018
To: Board of Directors
From: Jim Hartnett, Executive Director
Subject: August 2, 2018 JPB Board Meeting Executive Director’s Report

- **On-time Performance –**
  - **Through July 19:** The preliminary July 2018 OTP was 88.4 percent compared to 95.8 percent for July 2017.
    - **Trespasser Strike** – There were two trespasser strikes, one on July 5th and one on the 19th, both resulting in a fatality.
  - **June:** The June 2018 OTP was 91.9 percent compared to 94.5 percent for June 2017.
    - **Trespasser Strike** – There was one trespasser strike on June 2nd, resulting in a fatality.

- **Caltrain Emergency Preparedness Exercise**– On July 19, from 10:30 a.m. to 2:30 p.m. Caltrain conducted its annual live Emergency Preparedness exercise, a federal requirement per 49 CFR Part 239. This year’s exercise simulated a train versus motor vehicle on track event at the Bayshore Station. Preparation for the event began at 6:30 a.m. and demobilization of the event occurred at 4:30 p.m. There were 40 volunteer Passengers, who acted as Observers and Role Players, who provided feedback to the Agency. Feedback from our Passengers during these types of exercises, especially from our ADA participants is vital to the Agency and the sponsoring organizations who were involved in the exercise. Sponsoring partners included San Mateo County Sheriff’s Office – Transit Police Bureau, San Mateo County Sheriff’s Office – Office of Emergency Services,
San Francisco Municipal Transportation Agency, San Francisco Fire Department, North County Fire Authority & American Medical Response.

- **ROUTE SFO: Caltrain SFO Connection** – On Sunday June 24, 2018, SamTrans launched direct bus service from the Millbrae Transit Center (Caltrain and BART) to terminal stops at San Francisco International Airport including International Courtyard A, Terminal 2, Terminal 3 and International Courtyard G. All buses have additional luggage racks. There were free promotional rides between June 24 and July 7. After the free promotion, regular fares apply (Cash Only: $2.25 for adults, Senior and Youth Cash Fare is $1.10). For more info visit: http://www.samtrans.com/schedulesandmaps/timetables/Route_SFO.html

- **Bikes Board First Pilot Program #2** – On Monday, June 11, through Friday, July 13, Caltrain continued the pilot program that allowed bicyclists to board bike cars first on trains during the morning peak at three other stations (Sunnyvale – NB trains, Hillsdale – NB Trains and 22nd St. – SB trains). Passengers with bicycles were encouraged to board the bike cars at the southern end of the platform. Caltrain staff was on hand at the stations to enforce the policy, which would prevent bicyclists from having to navigate through a crowd of riders blocking the entrance. In addition the conductors on the trains helped to enforce the pilot. The boardings were timed and compared to the standard boarding process to determine if this new approach could make Caltrain overall service more efficient. The findings of the expanded pilot program, which was crafted with input from the Caltrain Bicycle Advisory Committee and bicycle advocacy groups, was presented to the BAC on July 19, 2018.

- **Fare Evasion Policy** – The 2nd seat drop (notices placed on every seat on all morning commute trains) took place on Thursday, June 21. Passengers were alerted to “Don't Risk It! Buy a ticket. No Ticket = $72 Notice of Violation” and directed to www.caltrain.com/FINES for additional details. The program will be fully rolled out on Wednesday, July 25.

- **CAC Meeting** – The Citizens Advisory Committee met on Wednesday, July 18, in San Carlos. Cynthia Scarella, Manager - Budgets, provided a presentation on FY2019 Operating and Capital Budgets. Catherine David, Principal Planner – Rail Operations, provided a presentation on the 2018 Annual Passenger Counts. Joe Navarro, Director - Rail Operations, provided the Staff Report. The next CAC meeting is scheduled for Wednesday, August 15, in San Carlos.

- **BAC Meeting** – The Bicycle Advisory Committee met on Thursday, July 19, in San Carlos. Kara Oberg, Active Transportation Planner – MTC, provided a
presentation on MTC Bike Share in the Bay Area. Catherine David, Principal Planner – Rail Operations, provided a presentation on the 2018 Annual Passenger Counts. Jennifer Navarrete, Customer Experience Communications Lead – Rail Operations, provided an updated presentation on the Bikes Board First Pilot Program. Lori Low, Public Affairs Specialist, provided the Staff Report. The next BAC meeting is scheduled for Thursday, September 20, in San Carlos.

- **Special Event Train Service** –

**Services Provided**

- **Giants Baseball** – The Giants hosted 16 regular season home games in June. Total additional riders alighting and boarding at San Francisco station, was 95,524. Year-to-date pre and regular season ridership, alighting and boarding at San Francisco station, was 240,185, a 19 percent decrease compared to the same number of games in 2017. The reported year to year ridership comparison takes into account the 2018 Annual Count revised weekday methodology.

  The Giants hosted 14 regular season home games in July.

- **Gay Pride Parade & Festival** – On Sunday, June 24, Caltrain provided two special northbound express trains departing from San Jose for riders headed to the Gay Pride parade and festival in downtown San Francisco. Along with operating Giants Service for the 1:05 p.m. home game the same day, two extra post-parade and festival trains were provided to accommodate large crowds. Total additional riders boarding and alighting at San Francisco station was 10,433, a 17 percent increase on 2017.

- **San Jose Earthquakes at Stanford Stadium** – On Saturday, June 30, at 6:45 p.m., the San Jose Earthquakes soccer team hosted the Los Angeles Galaxy at Stanford Stadium. Caltrain made stops at Stanford Stadium Station before and after the game (6 pre-game trains and 5 post-game trains, 2 less than in 2017). Total riders alighting and boarding at Stanford Stadium station was 1,158, a 34 percent decrease in ridership compared to 2017. The 2017 game was held prior to the reduced weekend service change.

- **Independence Day Holiday Service & SF Fireworks Service** – On Wednesday, July 4, Caltrain operated a Sunday schedule in observance of the Independence Day holiday. Caltrain also provided three extra post-SF special trains to accommodate the additional crowds. Caltrain carried 3,569 additional riders, a 24 percent decrease compared to 2017. Due to the
reduction in weekend service, there were two less trains in 2018 compared to 2017.

Services Scheduled:

- **Giants Baseball** – Regular season continues through September. Caltrain will provide regular baseball service for all home games. The Giants will have 13 regular season home games in August.

- **SJ Earthquakes vs. Manchester United** – On Sunday, July 22, at 2:00 p.m., the SJ Earthquakes will compete against Manchester United at Levi’s Stadium. No additional service will be provided. Caltrain will coordinate connecting service with VTA.

- **Gilroy Garlic Festival** – On Saturday, July 28, and Sunday, July 29, Caltrain will provide roundtrip charter service from San Jose to Gilroy for the Gilroy Garlic Festival. On both days, the train will depart San Jose Diridon Station at 10:00 a.m. and Gilroy Station at 4:00 p.m. Attendees will need to purchase a ticket for the charter trains separately. Tickets are being sold in advance online at gilroygarlicfestival.com. The charter train ticket includes shuttle service to and from the Gilroy station to the festival, and includes festival admission.

- **International Champions Cup** – On Sunday, August 4, at 5:00 p.m., AC Milan will compete against FC Barcelona in the International Champions Cup held at Levi’s Stadium. Caltrain will provide one extra post-event train. Caltrain will coordinate connecting service with VTA.

- **SF 49ers Pre-Season Games at Levi’s Stadium** – The SF 49ers will host the Dallas Cowboys on Thursday, August 9, at 7:00 p.m. and the Los Angeles Chargers on Thursday August 30, at 7:00 p.m. For weekend 49er home games, Caltrain will operate one additional pre-game southbound train with limited stops from San Francisco to Mountain View for passengers to connect to the VTA light rail. The extra train will then express to San Jose Diridon station, the last station stop. After all 49er home games, Caltrain will operate one extra post-game local train from Mountain View to San Francisco that will depart approximately 75 minutes after the game ends, or when full.

- **Ed Sheeran Concert at AT&T Park** – On Tuesday, August 21 at 7:00 p.m. Ed Sheeran will perform his 2018 North American Stadium Tour concert at AT&T Park. To accommodate the crowds expected for the pop singer, Caltrain will operate extra post-event service.
• **Stanford Football** – The Stanford Cardinals will host their first 2018 home football game of the season on Friday, August 31 at 6:00 p.m. vs. San Diego State. During weekday home games since Caltrain does not stop at the Stanford Stadium Station, fans are directed to use the Palo Alto Station. For weekend home games, Caltrain will serve the Stanford Stadium station with both northbound and southbound trains before and after games. From there fans can take the Marguerite Shuttle or walk to the Stanford Stadium. Fans can tag on and tag off using their clipper cards at the Stanford Stadium station for all weekend home games.

• **Labor Day** – On Monday, September 3, Caltrain will operate Sunday Service (24 trains) in observation of the Labor Day Holiday. The Tamien-San Jose Shuttle will also operate that day.

• **Capital Projects** –

The Capital Projects information is current as of July 13, 2018 and is subject to change between July 13 and August 2, 2018 (Board Meeting).

• **San Francisco Highway Bridges:** Replace three obsolete overhead vehicular bridges located in San Francisco at 23rd Street, 22nd Street, and Paul Avenue. Construction started in March 2015 and was substantially completed in May 2017.

Resolution of a Buy America issue with Caltrans continues that will also resolve funding issues for the project. Discussions regarding cost reimbursement from the City of San Francisco for their Auxiliary Water Supply System (AWSS) also continue. The AT&T relocation reimbursement request for performing utility relocation on their behalf is in the process of being transmitted to AT&T.

• **San Mateo 25th Avenue Grade Separation Project:** Raise the elevation of the alignment from Hillsdale Boulevard to south of the Highway 92 Overcrossing in the city of San Mateo. The project creates a grade separation at 25th Avenue, relocates the Hillsdale Station to the north, and creates two new east-west street grade-separated connections at 28th and 31st Avenues in San Mateo. Construction of the elevated rail alignment and the new Hillsdale Station will be phased to limit impact to the operating railroad.

In June & July, the abutments for the 25th Avenue Bridge were completed, the abutments and bent cap for the Pedestrian Underpass was completed, 3rd party fiber protection was completed and excavation commenced for the 28th Avenue Bridge, and the 3rd party fiber optic protection plan for the
31st Avenue Bridges was approved. PG&E also continued with relocation of their natural gas lines that are in conflict with the project alignment.

In August, anticipated activities include completion of the center bent cap at the 25th Avenue Bridge, completion of the abutments for the 28th Avenue Bridge, installation of 3rd party fiber optic protection devices at the 31st Avenue Bridge, placement of the precast girder for the Pedestrian Underpass, and commencement of construction of the Mechanically Stabilized Embankment (MSE) walls.

Due to delays associated with UPRR approvals and commencement of 3rd party fiber optic relocations, the project schedule has been affected. The temporary closure of the Hillsdale Station, to allow completion of the project, is now forecast to occur in the Spring 2019 until Fall 2019. During the temporary closure, enhanced bus and shuttle service to the Belmont Station will be provided to minimize the temporary inconvenience. Overall construction completion is now forecast to be extended from early 2020 to mid-2020.

- **South San Francisco Station Improvements:** Replace the existing side platforms with a new centerboard platform, construction of a new connecting pedestrian underpass to the two new plazas in downtown South San Francisco to the west and the shuttle area to east. Upon completion, the hold-out rule at this station will be removed that currently impacts the overall system operational efficiency.

In June & July, the encroachment permit from Caltrans was received that allowed the commencement of 3rd party utility relocations. Work also continued for the new centerboard platform, and, also for the relocation of the JPB’s Positive Train Control fiber optic lines. The Air Space Agreement between the City of South San Francisco and Caltrans remains outstanding and this issue affects the ability to commence construction of the pedestrian underpass. Project delays due to Caltrans permit issues that delayed utility relocations are projected to extend project completion from mid-2019 to early 2020.

- **Redwood City Grade Crossing Improvements:** The scope of this project is to improve the safety devices at three grade crossings within the city of Redwood City at Whipple Avenue, Main Street, and Broadway. The project will improve the Whipple Avenue crossing with new vehicular and pedestrian gates, new sidewalks and ramps, new pavement markings and striping. At Broadway, new pedestrian gates will be installed and new pavement markings will be added. At Main Street, new fencing, pedestrian gates, and pavement markings will be installed. The design and
construction schedule of this project has been coordinated with the City’s improvements in the same area.

During June and July, the contractor completed the installation and activation of the traffic signal cantilever at Whipple Avenue and, also the completed the activation of pedestrian gates at Whipple, Main and Broadway. Pavement markings and other safety devices at all three crossings were also completed. Substantial completion has been achieved and punchlist items and contract close-out are ongoing.

An amendment to the Caltrans Funding Agreement was approved at the June Board Meeting to accept additional CPUC Section 130 funds of $252,250.

- **FY16 Grade Crossing Improvements Project:** The scope of this project is to improve the safety at 10 grade crossings along the corridor. Work items included are the installation of signals, fences, gates, curbs, lighting and signs. The existing grade crossing warning devices will be retrofitted to meet the latest California Public Utilities Commission standards. The crossings to be improved include 16th Street in San Francisco, Broadway in Burlingame, Peninsula and 4th Ave. in San Mateo, Ravenswood in Menlo Park, Alma and Charleston in Palo Alto, Rengstorff and Castro in Mountain View, and Mary in Sunnyvale.

  The construction contract also includes the installation of medians at five crossings in Santa Clara County. The scopes of two projects were combined into a single construction contract to improve cost and administrative efficiency. These medians are required by the FRA and are intended to create a barrier that discourages vehicles from driving around down crossing gates. The five crossings are Churchill and East Meadow in Palo Alto, Sunnyvale Avenue in Sunnyvale, and Auzerais and West Virginia in San Jose.

  In June and July, the Notice to Proceed was issued on June 4, 2018 and construction commenced. The new medians at Alma Street, Churchill, and Charleston in Palo Alto have been completed. Work also commenced at East Meadow Drive. Overall construction is expected to complete by February 2019.

- **Sunnyvale Station Rehabilitation Project:** Replace the surface pavers in the station platform with colored cast-in-place concrete and the relocation of the north pedestrian crossing to the north by approximately 83 feet. Some of the surfaces of the platform pavers have become uneven and this project will create a smooth and even platform surface. The relocation of
the north pedestrian crossing will help to clear the southern crossing that is currently partially blocked when northbound 6-car consists arrive at the Sunnyvale Station.

Construction, which was suspended in March to address additional work for electrical grounding of the station platform, resumed in late-June. The construction of the first section of the northbound platform is scheduled to complete by the end of July. The construction is being phased in partial sections of the station platforms so that passenger service may continue during construction. The schedule impact of the additional work and work suspension has extended the forecast date for completion from August to October.

- **Inward Facing Cameras**: Install cameras on locomotives and cab cars that will video and voice record the train operators during revenue operations. Currently there are outward facing cameras on locomotives that record the right-of-way from the vantage point of the operators. The inward facing cameras are recommended by the National Transportation Research Board and assists in post-accident investigations. Inward facing cameras are already in service on Metrolink in Southern California and by railroads such as the Union Pacific and Burlington Northern Santa Fe.

Installation and testing of the cameras was completed in April. The final activity of training of TASI personnel in the operations and maintenance of the cameras has been scheduled for the week of July 16-20. Contract close-out will follow the completion of training.

- **HVAC Improvements at the CCF Communications Equipment Room**: Improve the cooling systems in the electronics equipment room at the Central Control Facility in San Jose. The amount of electronic equipment has greatly increased which has resulted in overloading of the existing cooling system. With the addition of newer systems such as CBOSS/PTC, ROCS/PADS, and upgrades to communications systems; the capacity of the existing cooling system is inadequate to maintain a sufficiently cool temperature. Equipment failure to critical systems such as dispatching and communications due to overheating is an unacceptable operational risk. This problem was being temporarily addressed by using rental cooling systems that was inadequate for future expansion and is costly. This project will address current and future cooling capacity by adding and replacing current cooling systems with newer and more efficient cooling equipment.

In June and July, all construction and installation activities were completed. Final Testing and balancing of the new HVAC systems will be performed
from mid to late July. The project is expected to complete by July 2018.

- **F-40 Locomotive Mid-Life Overhaul Project:** Perform mid-life overhaul of three F40PH2C locomotives. The mid-life overhaul of the locomotives shall include complete disassembly of the main diesel engine, overhauling by reconditioning re-usable main frame components and re-assembly with new engine components and replacement of the Separate Head-End Power (SEP-HEP) unit and all electrical components of the SEP-HEP compartment. All areas of the locomotive car body, trucks, wheels and electrical components shall be reconditioned to like-new condition or replaced with new material. The work shall be completed off-site at contractor’s (Motive Power) facility location at Boise, Idaho. The three locomotives are Locomotive #’s 920, 921 and 922.

Locomotives #’s 920 and 921 were shipped to the vendor’s facility in February and March. Both locomotives are still undergoing overhaul and are expected to be returned to the CEMOF facility in San Jose in August for Final Acceptance testing. Locomotive #922 has been rescheduled to be shipped to the vendor’s facility in October.

- **MP-36 Locomotive Mid-Life Overhaul Project:** Perform mid-life overhaul of six MP-36-3C Locomotives. The mid-life overhaul of the locomotives shall include complete disassembly of the main diesel engine, overhauling by reconditioning re-usable main frame components and re-assembly with new engine components and the replacement of the Separate Head-End Power (SEP-HEP) unit and all electrical components of the SEP-HEP compartment. All areas of the locomotive car body, trucks, wheels and electrical components shall be reconditioned to like-new condition or replaced with new material. The project work shall be completed off-site at the contractor’s facility location. The six locomotives are Locomotive #’s 923, 924, 925, 926, 927 and 928.

- Technical specifications for the work were completed in February 2018. The Request for Proposal was advertised on June 12, 2018. Proposals are due from the vendors on July 27. Evaluations and contract negotiations will follow the receipt of proposals. Award of the contract is currently forecast for late 2018 and overall completion of the work in Fall 2020.
Peninsula Corridor Joint Powers Board  
May 2018  
Treasury Ratios  
Preliminary and Unaudited

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<tr>
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<td>35.8</td>
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<td>58.9</td>
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<td>26.2</td>
<td>26.0</td>
<td>25.9</td>
<td>25.2</td>
<td>20.9</td>
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<td>Total Cash</td>
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<td>$83.3</td>
<td>$83.3</td>
<td>$85.2</td>
<td>$84.6</td>
<td>$75.3</td>
<td>$75.4</td>
<td>$73.6</td>
<td>25.1</td>
</tr>
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</table>

Days Cash on Hand:  
| Operating | 123   | 126   | 128   | 88    | 69    | 63    | 69    | 87   | -    |
| All Unrestricted Cash | 155   | 213   | 217   | 226   | 231   | 206   | 216   | 220  | 13   |
| All Cash | 250   | 310   | 317   | 327   | 334   | 314   | 329   | 335  |      |

Debt Service as a % of Operating Revenue | 0.7% | 0.8% | 0.9% | 1.0% | 1.0% | 1.0% | 0.9% | 0.9% | 1.3% |

Debt Outstanding as a % of Operating Revenue | 19.3% | 21.3% | 23.6% | 26.3% | 26.0% | 25.5% | 24.7% | 24.2% | 35.8% |

Debt Service Coverage (including Formula Grants) | 13.3 | 13.3 | 13.3 | 13.3 | 13.3 | 13.3 | 13.3 | 13.3 | 3.9 |
TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Michelle Bouchard
Chief Operating Officer, Rail

SUBJECT: CALTRAIN POSITIVE TRAIN CONTROL PROJECT UPDATE - JULY 2018

ACTION
Staff Coordinating Council recommends that the Board receive the Positive Train Control (PTC) report for July 2018.

SIGNIFICANCE
Staff will provide monthly updates covering PTC related activities during the previous month and provide a preview of activities anticipated to take place during the current month.

BUDGET IMPACT
There is no budget impact.

MONTHLY UPDATE

1. Status on Major Milestones to Successfully Enter RSD December 2018

<table>
<thead>
<tr>
<th>Key Project Activity</th>
<th>Expected Completion</th>
<th>Progress As Of 7/31/18</th>
<th>Progress On Track?</th>
<th>Mitigation Required or Approvals Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval of Designated RSD Test Request</td>
<td>May 31</td>
<td>In FRA review</td>
<td>No</td>
<td>Original Test Request submitted to FRA on April 18 for approval. Revised Test Request submitted to FRA on June 22 based on FRA initial comments. Awaiting final FRA approval.</td>
</tr>
<tr>
<td>Approval of revised project PTC Implementation Plan (PTCIP) and Request for Amendment (RFA)</td>
<td>May 31</td>
<td>In FRA review</td>
<td>No</td>
<td>Revised PTCIP and RFA submitted to FRA for approval on May 7. Revised PTCIP and RFA submitted on June 22 based on initial FRA comments. Awaiting final FRA approval.</td>
</tr>
<tr>
<td>Pilot Installations (4) Completed</td>
<td>June 20</td>
<td>Completed</td>
<td>Completed</td>
<td>All (4) pilot installs completed, production installs have begun.</td>
</tr>
<tr>
<td>Submit Designated RSD Application</td>
<td>Oct 15</td>
<td>Drafts in review</td>
<td>Yes</td>
<td>No issues at this time, discussions with FRA ongoing to insure clarity in process.</td>
</tr>
<tr>
<td>Designated RSD Training Complete</td>
<td>Nov 14</td>
<td>Not Started</td>
<td>Not Started</td>
<td>Master Test Plan reviewed, material</td>
</tr>
</tbody>
</table>
Major Wabtec activities started and/or completed in July:
- Completed pilot installations of I-ETMS onboard equipment on (4) Caltrain locomotive and Caltrain cab cars, cars may be used in normal operations with PTC not engaged.
- Production installations of On Board PTC equipment has begun.
- Senior management meetings ongoing between JPB and Wabtec senior staff to discuss project progress and ensure any JPB concerns are addressed promptly.
- Field Verification & Validation testing has begun, Wabtec started with Critical Features and proceeding to WIU mapping and brake testing upon completion of Critical Features.
- Test lab set-up at Wabtec facility has been slightly delayed due to material and resource planning issues. Wabtec has re-planned requirements and testing is to begin in August.
- Significantly large number of contract submittals have been submitted by Wabtec, reviewed and comments returned by Caltrain project team. A sampling of the submittals in July included:
  - Vehicle Installation Guides
  - Vehicle Brake Test Plans
  - Critical-Features Test Plan
  - Integrated Work Plan
  - WIU Mapping Field Valid and Verification Test
  - On Board System Maintenance Manual
  - Subdivision Release Package
  - RFI for Crossings Data Analyzer for 35 Crossings
  - PTC Configuration Management Plan
  - ITCM System Design
  - PTC RAM Plan
  - DC's RF Drive Test Plan - AAR

2. **Change Order Log** - There have been no change orders requested from Wabtec during this reporting period, and there are none in process or review by JPB. This section will track all change activity on the contract.

3. **Risk Management** - JPB and Wabtec initiated the joint risk review sessions in June, with tentative agreement on format and reporting tool to be employed, and began deep dive into all risks to be monitored as part of the joint risk pool of items. There were no risks identified in the first meeting requiring elevation to JPB or Wabtec senior management for consideration of use of the risk pool funds. JPB and Wabtec have agreed to share the management of an identified list of risk items which were identified during the contract negotiations. The total cost allocated to these risks is $1.9M to be shared amongst both parties. Unrealized risks will result in cost savings to the JPB. Risk review meetings between the JPB and Wabtec will be held on a quarterly basis, with the resulting update and actions to be noted in this report. There are also risks to be monitored outside the Wabtec specific contract that the project team monitors and mitigates as necessary.

The following table captures the top risks both external (outside the Wabtec contract) and internal (specific to the Wabtec contract):

<table>
<thead>
<tr>
<th>Risk Item</th>
<th>Type</th>
<th>Mitigation Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential EMU delay due to</td>
<td>External</td>
<td>Project team continues to support EMU team effort to bring</td>
</tr>
<tr>
<td>Move from I-ITCS to I-ETMS</td>
<td>Wabtec under contract to provide PTC solution required for EMU cars with minimal delay</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>FRA process changes</td>
<td>Maintain close and open relationship with key FRA contacts to ensure all submittals are done correctly and within required time frame to achieve 2018 RSD</td>
<td></td>
</tr>
<tr>
<td>FRA review cycle delays</td>
<td>Delays are being incurred due to significant volume of submittals from all properties requiring review and approval of RSD documentation prior to year end. Team working with FRA to minimize any delays incurred with Caltrain documentation and speed FRA review process</td>
<td></td>
</tr>
<tr>
<td>Interoperability delays</td>
<td>Work with UPRR and tenants to ensure agreed to interoperability schedule dates are maintained</td>
<td></td>
</tr>
<tr>
<td>Onboard installation delays</td>
<td>Pilots installations are completed, project team is working with Wabtec to ensure installations are not delayed due to Caltrain review periods. Wabtec must insure production installation schedule is maintained to achieve required 2018 installs to achieve RSD</td>
<td></td>
</tr>
<tr>
<td>Track access delays</td>
<td>Ensure field test schedule is maintained by coordinating all field work in combination with other capital projects needs</td>
<td></td>
</tr>
<tr>
<td>Back Office Server (BOS) documentation scope creep</td>
<td>Ensure standard documentation supplied by Wabtec meets requirements of Caltrain specification criteria</td>
<td></td>
</tr>
</tbody>
</table>

### 4. Cost - Spend vs budget

<table>
<thead>
<tr>
<th>Project Cost Analysis</th>
<th>(A)</th>
<th>(B)</th>
<th>(C)</th>
<th>(D)</th>
<th>(E)</th>
<th>(F) = (C - E)</th>
<th>(G) = ( D / E)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CBOSS PTC Project</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>(Jan 2008 - Feb 2018)</td>
<td>$ 231.00</td>
<td>$ 239.88</td>
<td>$ 202.26</td>
<td>$ 202.26</td>
<td></td>
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<tr>
<td><strong>Caltrain PTC Project</strong></td>
<td></td>
<td></td>
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<tr>
<td>(March 1st 2018 - June 2020)</td>
<td></td>
<td></td>
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<tr>
<td>Integrator WABTEC Contract</td>
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<td>$ 4.55</td>
<td>$ 43.01</td>
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<td>10.57%</td>
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<tr>
<td>Other Contractors</td>
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<td>$ 6.00</td>
<td>$ 0.01</td>
<td>$ 6.00</td>
<td>$ -</td>
<td></td>
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<tr>
<td>Potential Changes</td>
<td>$ 2.00</td>
<td>$ 2.00</td>
<td>$ 2.00</td>
<td>$ 2.00</td>
<td>$ -</td>
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<tr>
<td>Potential Incentive - WABTEC</td>
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<td>$ 2.00</td>
<td>$ 2.00</td>
<td>$ 2.00</td>
<td>$ -</td>
<td></td>
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<td>Other Program Costs</td>
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<td>$ 30.34</td>
<td>$ 2.51</td>
<td>$ 30.03</td>
<td>$ 0.31</td>
<td>8.35%</td>
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<tr>
<td>Project Contingency</td>
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<td>$ 6.06</td>
<td>$ 6.06</td>
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<tr>
<td><strong>Total PTC Project</strong></td>
<td>$ 89.41</td>
<td>$ 89.41</td>
<td>$ 7.07</td>
<td>$ 89.10</td>
<td>$ 0.31</td>
<td>7.93%</td>
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Note:
1. Expended and Arrual to Date is through June 30, 2018;
2. Integrator Wabtec Contract Value includes Shared Risk with Not to Exceed Total of $1.91MM;
3. Other Contractors amount includes ROCS Modification and potential fiber fixes;
4. Potential Changes amount is set for future project change orders as result of WABTEC assessment and survey for the communications and office subsystems;
5. Potential incentive amount reflects what is in the WABTEC conformed agreement;
6. Other Program Costs includes JPB project oversight costs, TASI support and Other Direct Cost for PTC project delivery;
7. Project contingency includes a) contingencies for WABTEC contract per Board Staff Report; b) JPB project team cost contingency;
8. CBOSS PTC project budget and actual cost are highlighted to reflect prior March 1st, 2018 CBOSS project financial data.
5. **Items of note in July** - This section reports on PTC general progress and issues being tracked outside the Wabtec contract during the current reporting month.

1) Project team member attended second FRA PTC symposium in Washington D.C. on June 16th, gaining significant information and clarity as to PTC testing requirements to achieve RSD. Project team members planning to attend the third symposium to be held in August.

2) Project team hosted site visit by FRA national and regional team on July 24th, reviewing Caltrain submitted documentation still under FRA review and discussing strategies as to how Caltrain can proceed to maintain schedule to attain RSD or alternate schedule / plan to meet FRA requirements by year end.

3) Project team had submitted a revised PTC Implementation Plan (IP) and Request For Amendment (RFA) and a revised Test Request (TR) on June 22 for FRA approval. Caltrain had expected to receive rapid approval of these key documents but as of July 23 are still awaiting comments / approval. These documents are key project submittals that once approved may be used as a basis for the approval other documents required to achieve RSD.

4) Project team supported the submitted the Consolidated Rail Infrastructure and Safety Improvements (CRISI) Part 2 testing grant in July to request funding (approximately $20M) to support the implementation of PTC at Caltrain.

5) Project team submitted the FRA 2nd Quarter PTC Report to the FRA as well as a copy to APTA for review.

6) Project team continued to perform analysis of installed WIUs requiring maintenance and examining the need for path forward to maintain WIU updates via either maintenance agreement with previous integrator signaling subcontractor or through other options.

7) Ongoing formal and informal updates to the FRA to ensure the Caltrain PTC project provides all information required in timely and correct manner expected to achieve RSD this year. Building strong relationships with the FRA regional personnel key to ensuring minimal if any delays in the review process.

8) Continued updates to Caltrain tenant railroads and the UPRR, discussing the Caltrain project re-start and plans to achieve PTC interoperability for the Caltrain and UPRR properties.

9) Project team completed review / replan of overall program budget required to finish the PTC project. The JPB executive staff will submit the revised budget to the PTC Ad Hoc committee and Board for review.

10) The PTC project continues its coordination efforts with the Electrification and EMU programs via regularly scheduled status meetings such as the Biweekly CalMod Systems Integration, the PCEP Delivery Coordination and the PTC-PCEP coordination meetings. Ad hoc meetings to discuss topics requiring indepth or immediate decisions are held as needed.

11) Continued field audit and diagnosis of Wayside Interface Units (WIUs) in designated RSD section and expanding to other areas to corrective action to restore functionality on any units identified by Wabtec.

12) Caltrain configuration management (CM) manager continues full integration into project team to ensure all Caltrain CM requirements are maintained during project execution and transition to daily operations upon project completion.

13) Caltrain Go Live team reinstated to ensure smooth transition of PTC operations and maintenance upon project completion. These efforts include manloading planning for both Caltrain and TASI operations and maintenance, as well as coordination of Master Service Agreements (MAS) negotiations with key suppliers required to support PTC long term service needs.

6. **Upcoming Key Activities in August** -

1) Continue production onboard installations on Caltrain fleet – With completion of (4) pilot installations, Wabtec is now installing their onboard PTC product on (40) production vehicles that have been chosen for the (44) total vehicles to be installed and tested to complete the RSD requirements for fleet installations.
2) Receive anticipated FRA approval for the designated RSD track segment (15 miles) required for achieving RSD in 2018. Also expect approval of the PTCIP, RFA and Test Request if not received in July.

3) Continue regular open communication with Wabtec senior management to ensure the Wabtec project team maintains focus on completing all activities required to meet 2018 RSD requirements.

4) Continue V&V testing activities in designated RSD area as well as braking tests to ensure all PTC equipment is in good working condition.

5) Continue to work closely with the FRA regional and national representatives to ensure all aspects of documentation and testing requirements are maintained and approvals (by FRA) granted.

6) Attend (with freight and other commuter rail authorities) the August FRA coordination meeting in Washington, D.C. to gain further FRA direction / insights to ensuring smooth coordination and reviews of RSD application documentation toward goal of gaining 2018 RSD approvals.

Prepared By: Matt Scanlon, Deputy Director, Systems 650.622.7819
May 2018
Monthly Progress Report

May 31, 2018
Funding Partners

Federal Transit Administration (FTA) Core Capacity
FTA Section 5307 (Environmental / Pre Development only)
FTA Section 5307 (Electric Multiple Unit (EMU) only)

Prop 1B (Public Transportation Modernization & Improvement Account)
Caltrain Low Carbon Transit Operations Cap and Trade

Proposition 1A
California High Speed Rail Authority (CHSRA) Cap and Trade

Carl Moyer Fund

Bridge Tolls (Funds Regional Measure (RM) 1/RM2)

San Francisco County Transportation Authority (SFCTA)/San Francisco Municipal Transportation Agency (SFMTA)

San Mateo County Transportation Authority (SMCTA) Contribution
SMCTA Measure A

Santa Clara Valley Transportation Authority (VTA) Measure A
VTA Contribution

City and County of San Francisco (CCSF) Contribution
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1.0 BACKGROUND

Over the last decade, Caltrain has experienced a substantial increase in ridership and anticipates further increases in ridership demand as the San Francisco Bay Area’s population grows. The Caltrain Modernization (CalMod) Program, scheduled to be implemented by 2021, will electrify and upgrade the performance, operating efficiency, capacity, safety, and reliability of Caltrain’s commuter rail service.

The PCEP is a key component of the CalMod Program and consists of converting Caltrain from diesel-hauled to Electric Multiple Unit (EMU) trains for service between the San Francisco Station (at the intersection of Fourth and King Streets in San Francisco) and the Tamien Station in San Jose. Caltrain will continue Gilroy service and support existing tenants.

An electrified Caltrain will better address Peninsula commuters’ vision of environmentally friendly, fast and reliable service. Electrification will modernize Caltrain and make it possible to increase service while offering several advantages in comparison with existing diesel power use, including:

- **Improved Train Performance, Increased Ridership Capacity and Increased Service:** Electrified trains can accelerate and decelerate more quickly than diesel-powered trains, allowing Caltrain to run more efficiently. In addition, because of their performance advantages, electrified trains will enable more frequent and/or faster train service to more riders.

- **Increased Revenue and Reduced Fuel Cost:** An electrified Caltrain will increase ridership and fare revenues while decreasing fuel costs.

- **Reduced Engine Noise Emanating from Trains:** Noise from electrified train engines is measurably less than noise from diesel train engines. Train horns will continue to be required at grade crossings, adhering to current safety regulations.

- **Improved Regional Air Quality and Reduced Greenhouse Gas Emissions:** Electrified trains will produce substantially less corridor air pollution compared with diesel trains even when the indirect emissions from electrical power generation are included. Increased ridership will reduce automobile usage, resulting in additional air quality benefits. In addition, the reduction of greenhouse gas emissions will improve our regional air quality, and will also help meet the state’s emission reduction goals.
2.0 EXECUTIVE SUMMARY

The Monthly Progress Report is intended to provide an overview of the PCEP and provide funding partners, stakeholders, and the public an overall update on the progress of the project. This document provides information on the scope, cost, funding, schedule, and project implementation. Work along the Caltrain Electrification Corridor has been divided into four work segments and respective work areas (WA) as shown in Figure 2-1. PCEP activities are described and summarized by segments and work areas.

Figure 2-1 PCEP Work Segments
Ten Overhead Contact System (OCS) foundations were installed in Segment (S) 2 Work Area (WA) 4 this month. Demolition of the existing structure where Traction Power Substation (TPS) 2 will be constructed has begun. Pacific Gas and Electric (PG&E) and the Peninsula Corridor Joint Powers Board (JPB) are still negotiating the terms of Supplemental Agreement Number 4 for execution.

The JPB received a single bid on May 11 for the Tunnel Modification project, which is anticipated to be negotiated and awarded in June.

Stadler’s Final Design Review (FDR) phase of the EMU systems is nearing completion with exception of truck and software intensive systems (monitoring and diagnostic and train control systems). The First Article Inspection (FAI) of Cab Car carshell was successfully completed.

2.1 Funding Partners Participation in PCEP

The PCEP has a series of weekly, biweekly, monthly and quarterly meetings to coordinate all aspects of the program. The meetings are attended by project staff with participation by our funding partners in accordance with the Funding Partners Oversight Protocol. A summary of funding partner meetings and invitees can be found in Appendix B.

This section of the report provides a summary of the discussions and decisions made at the meetings and a list of funding partners who attended the meetings.

Electrification – Engineering Meeting – Weekly

Purpose: To discuss status, resolution and tracking of Balfour Beatty Infrastructure, Inc. (BBII) and electrification design-related issues, to discuss and monitor the progress of utility relocation compared to schedule, and to discuss third-party coordination activities with PG&E, CHSRA, Union Pacific Rail Road (UPRR), Bay Area Rapid Transit, California State Department of Transportation (Caltrans), Positive Train Control (PTC) and others.

Activity this Month

Funding Partners: CHSRA: Ian Ferrier

Continued discussions on critical UPRR pole changes, resolution of outstanding issues for Segment 4 and 2 foundation installation, the progression of the interconnections design and PG&E interface, coordination between the PCEP and other JPB projects, the utility relocation status, status of the tunnel contract, updates of the Supervisory Control and Data Acquisition (SCADA) project, critical Design-Build (DB) contract design and construction updates, upcoming changes to the contract in preparation for the Change Management Board (CMB), critical Right of Way (ROW) issues, coordination with key third parties on design review and permitting for the project, and critical open items such as contractor Requests for Information (RFI), submittals and potential contract changes.
PCEP Delivery Coordination Meeting – Bi-Weekly

Purpose: To facilitate high-level coordination and information sharing between cross-functional groups regarding the status of the work for which they are responsible.

Activity this Month

May 8 Funding Partners: CHSRA: Ian Ferrier; SFCTA: Luis Zurinaga

Bids for the Tunnel Modification project will be coming in on May 11. Work is to begin this fall. The current focus is to complete potholes in the UPRR Main Track 1 area in Segment 4. An addendum to the PCEP Final Environmental Impact Report for the potential move of Paralleling Station (PS) 3 may be required. Real Estate reports most of the Segment 2 and 4 parcels have been acquired. Procurement reports the negotiations for the electric locomotive procurement should be finalized soon. The Request for Proposals (RFP) for the Special Testing and Inspection Services are due June 11, Construction Management Services will be issued in late May or early June, and Safety and Security Services will be issued in mid-June. Invitation for Bids for Centralized Equipment Maintenance and Operations Facility (CEMOF) modifications will be issued in June. The FAI was performed on the first EMU Cab Car shell. The second shell is being shipped for structural validation testing. The electrification construction and field activities continue, including OCS foundation installation, pole installation, and potholing, signal cable relocation, tree pruning and removal, and surveying activities.

May 22 Funding Partners: CHSRA: Ian Ferrier

BBII work is expected to move to Segment 1 in the fall so BBII can perform work during weekend shutdowns for the Tunnel Modifications contract. Lessons Learned interviews will continue to be conducted with PCEP staff. Three design audits are planned for the month, but the field audit has been pushed to June. Issues in Real Estate are tracking well. A change notice has been issued to relocate PS-2, and relocation of PS-3 remains uncertain. A final design review is scheduled for SCADA next week. The FTA Quarterly Review is scheduled for June 14.

Systems Integration Meeting – Bi-Weekly

Purpose: To discuss and resolve issues with inter-system interfaces and to identify and assign Action Item Owners for interface points that have yet to be addressed.

Activity this Month

Funding Partners: CHSRA: Ian Ferrier

Bi-weekly PCEP interface meetings are held to monitor and resolve systems integration issues. The systems integration database is updated as issues are resolved or new items arise. Meetings are held bi-weekly with the electrification contractor to discuss design and construction integration issues. The Systems Integration Lead is also setting up bi-weekly meetings with the EMU Procurement team. The Traction Power SCADA team also holds bi-weekly status meetings. Coordination with the EMU procurement, PTC and Caltrain Capital Project managers responsible for delivery of the East 25th Avenue Grade Separation Project, Marin Napoleon Bridge Rehabilitation Project, and the South San Francisco Station Project is ongoing. Caltrain’s CEMOF modification
project design is being finalized to issue a bid package. Progress on activities including systems integration testing activities, Federal Railroad Administration, FTA and safety certification are being tracked. The Systems Integration test plan has been submitted for review by BBII.

**Master Program Schedule (MPS) Meeting – Monthly**

**Purpose:** To review the status of the MPS and discuss the status of major milestones, critical and near critical paths, upcoming Board review items, and progress with the contracts, among others.

**Activity this Month**

**Funding Partners:** CHSRA: Ian Ferrier

The monthly meeting in May contained only minor updates. The overall schedule remains unchanged. The forecasted Revenue Service Date (RSD) remains December 2021. The addition of approximately five months of contingency to account for potential risk to the project yields an RSD of April 2022. The program critical path runs through PG&E design and construction to provide permanent power, and concludes with pre-revenue testing. The near-critical path runs through manufacturing and testing of EMU trainsets.

**Risk Assessment Meeting – Monthly**

**Purpose:** To identify risks and corresponding mitigation measures. For each risk on the risk register, mitigation measures have been identified and are being implemented. Progress in mitigating these risks is confirmed at the ongoing risk monitoring and monthly risk assessment meetings.

**Activity this Month**

**Funding Partners:** CHSRA: Ian Ferrier

Two risks were retired and two risks added. Four risks were re-graded and two risks revised.

See the Risk Management section (Section 11).

**Change Management Board (CMB) – Monthly**

**Purpose:** To review, evaluate and authorize proposed changes to PCEP over $200,000.

**Activity this Month**

**Funding Partners:** CHSRA: Bruce Armistead and Boris Lipkin; MTC: Trish Stoops and Glen Tepke; SFCTA: Luis Zurinaga; VTA: Krishna Davey and Carol Lawson; SMCTA: Joe Hurley

Major topics included: contingency usage, potential changes to the Stadler contract and track access delays, differing site condition field orders updates, potential contract incentives as well as other potential changes as part of the BBII contract.
Potential contract changes will follow the PCEP Change Order Procedure. Once approved changes are executed, they will be reported in the Change Management section (Section 9) of this report.

**BBII Contract**

One change was approved.

**Stadler Contract**

No changes were approved.

**SCADA Contract**

No changes were identified for consideration.

### 2.2 Schedule

The current Master Program Schedule (MPS) reflects a Revenue Service Date (RSD) of December 2021, without adjustment for contingency. This is consistent with the revised baseline established in November 2017. With the addition of approximately five months of contingency to account for potential risk to the project, the RSD is anticipated as April 2022. Due to FTA contingency requirements, a Full Funding Grant Agreement (FFGA) RSD will also be tracked. This date is forecast as August 22, 2022 and represents the final milestone in the Program Plan.

The program critical path runs through PG&E design and construction to provide permanent power, and concludes with pre-revenue testing. The near-critical path runs through design and manufacturing of EMU trainsets. There is no change to the critical and near-critical paths from the prior reporting month.

Table 2-1 indicates major milestone dates for the MPS.

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Program Plan</th>
<th>Progress Schedule (May 2018)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Eight Miles of Electrification Complete to Begin Testing</td>
<td>11/21/2019</td>
<td>05/10/2020²</td>
</tr>
<tr>
<td>Arrival of First Vehicle at JPB</td>
<td>07/29/2019</td>
<td>07/15/2019</td>
</tr>
<tr>
<td>PG&amp;E Provides Permanent Power</td>
<td>09/09/2021</td>
<td>09/09/2021</td>
</tr>
<tr>
<td>Start Pre-Revenue Testing</td>
<td>09/10/2021</td>
<td>09/10/2021</td>
</tr>
<tr>
<td>RSD (w/o Risk Contingency)</td>
<td>12/09/2021</td>
<td>12/09/2021</td>
</tr>
<tr>
<td>RSD (w/ Risk Contingency)</td>
<td>04/22/2022</td>
<td>04/22/2022</td>
</tr>
<tr>
<td>FFFGA RSD</td>
<td>08/22/2022</td>
<td>08/22/2022</td>
</tr>
</tbody>
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¹ Dates may shift slightly as the update of this month’s Progress Schedule is still in progress.
² See “Notable Variances” in Section 7 for explanation on date shift.
2.3 Budget

A summary of the overall budget and expenditure status for the PCEP is provided in Table 2-2 below.

Table 2-2 Budget and Expenditure Status

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Budget (A)</th>
<th>Current Budget (B)</th>
<th>Cost This Month (C)</th>
<th>Cost To Date (D)</th>
<th>Estimate To Complete (E)</th>
<th>Estimate At Completion (F)</th>
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</thead>
<tbody>
<tr>
<td>Electrification Subtotal</td>
<td>$ 1,316,125,208</td>
<td>$ 1,316,125,208</td>
<td>$ 9,650,777</td>
<td>$ 357,377,514</td>
<td>$ 958,747,693</td>
<td>$ 1,316,125,208</td>
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<tr>
<td>PCEP TOTAL</td>
<td>$ 1,980,252,533</td>
<td>$ 1,980,252,533</td>
<td>$ 36,799,057</td>
<td>$ 474,798,967</td>
<td>$ 1,505,453,566</td>
<td>$ 1,980,252,533</td>
</tr>
</tbody>
</table>

Notes regarding tables above:
1. Column B “Current Budget” includes executed change orders and awarded contracts.
2. Column C “Cost This Month” represents the cost of work performed this month.
3. Column D “Cost To Date” includes actuals (amount paid) and accruals (amount of work performed) to date.

2.4 Board Actions

- None this month

Future anticipated board actions include:

- June
  - Award authority to negotiate and execute Tunnel Modification construction contract
  - Authority to procure used electric locomotive
- July – None
- August
  - Addendum to PCEP FEIR – Relocation of PS2
  - Addendum to PCEP FEIR – Relocation of PS3
- September
  - Award Special Testing and Inspection Services contract
- October
  - Award CEMOF Modifications construction contract
- November
  - Award of Construction Management Support Services contract
  - Award of Safety and Security Support Services
- To Be Scheduled
  - Award Ambassador contract

2.5 Government and Community Affairs

There were three outreach events this month.
3.0 ELECTRIFICATION – INFRASTRUCTURE

This section reports on the progress of the Electrification, SCADA, and Tunnel Modification components. A brief description on each of the components is provided below.

3.1 Electrification

The Electrification component of the PCEP includes installation of 138 miles of single track and OCS for the distribution of electrical power to the EMUs. The OCS will be powered from a 25 kilovolt (kV), 60-Hertz, single phase, alternating current supply system consisting of two traction power substations (TPS), one switching station (SS), and seven paralleling stations (PS). Electrification will be performed using a DB delivery method.

Activity This Month

- OCS foundation installation continued in S2WA4. The table below summarizes the current progress of foundation installation. Foundation installation will continue in both S2WA4 and S2WA5 in next month.
- OCS pole installation continued in S2WA5. The table below summarizes the current progress of pole installation.
- Potholing at proposed OCS locations continued in Segments 2 and 4 in advance of foundation installation. BBII also continued to resolve conflicts found during the potholing process, such as loose concrete, asphalt, and other debris.
- Relocation of signal cables found in conflict with planned OCS foundations continues as conflicts are identified.
- Began demolition and site work at the future location for TPS-2.
- Continued progression of the OCS design with BBII in Segments 2 and 4. Received and reviewed OCS Layouts for Segment 4A CEMOF and various Design Change Notices for OCS foundations.
- Continued design review coordination with local jurisdictions for the OCS, Traction Power Facilities, and Bridge Attachments design in Segments 2 and 4, including responses to comments from jurisdictions.
- Continued to review and coordinate signal and communication design submittals with BBII.
- Received and reviewed 65% submittal for Segment 1 and 3 Bridge Screening and Attachments.
- Received 65% Traction Power Facilities for Segments 1 and 3.
- Continued development of 95% Communications Systemwide Design.
- Reviewed BBII’s System Ductbanks Layout for Segment 4 Issued for Construction.
- Reviewed BBII’s Station and Structure Bonding 95% for Segments 2 and 4.
- The PCEP team and BBII continue to work through Site Specific Work Plans (SSWP) for upcoming field work.
- Continued tree pruning and removals in Segment 3.
Continued coordination efforts with PG&E for infrastructure improvements, TPS interconnects and new service drop locations. The PCEP team continues to work with PG&E for the finalization of protection scheme studies. PG&E and the Peninsula Corridor Joint Powers Board (JPB) are continuing to negotiate the terms of Supplemental Agreement Number 4.

A summary of the work progress by segment is provided in Table 3-1 below.

### Table 3-1 Work Progress by Segment

<table>
<thead>
<tr>
<th>Segment</th>
<th>Work Area</th>
<th>Foundations</th>
<th>Poles</th>
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<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>166</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>622</td>
<td>338</td>
</tr>
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¹ Foundations required do not match poles required as guy foundations are needed in some locations for extra support.

### Activity Next Month

- Begin installation of OCS foundations in S2WA3 to facilitate work coordination between PCEP and 25th Avenue Grade Separation.
- Continue installation of OCS foundations in S2WA5 and S2WA4.
- Continue pole installation in S2WA5.
- Continue work with BBII on field investigation activities and designs, which will include the progression of the OCS, traction power, bonding and grounding, signal systems, and other civil infrastructures such as overhead bridge protections.
- Continue potholing and clearing of obstructions at proposed OCS locations. Potholing will continue with a focus on Segment 2 and 4 for foundation installation.
- Continue site work on TPS-2.
- Begin off track conduit installations in Segment 2.
- Continue coordination with UPRR on signal and OCS design.
- Continue coordination with stakeholders on the constant warning solution.
- Continue review of BBII work plans for upcoming construction activities.
- Complete 35% design for PG&E interconnection.
- Continue coordination with PG&E on final design for PG&E infrastructure.
- Continue design reviews and coordination with local jurisdictions.
- Continue tree pruning and removals.
3.2 **Supervisory Control and Data Acquisition**

SCADA is a system that monitors and controls field devices for electrification, including substations, PSs and the OCS. SCADA will be integrated with the base operating system for Caltrain Operations and Control, which is the Rail Operations Center System.

**Activity This Month**

- Reviewed technical submittals.
- Responded to Requests for Information.
- Revised Monthly Progress Schedule Rev 1 and PTC impact schedule. No response to comments received.
- Monthly progress schedules are now being reviewed.
- Preliminary Design Review was accepted with no objections.
- FDR review meeting held 5/29/18.
- Final FDR Design Change Forms will be sent for review.
- Discussed and coordinated Heating, Ventilation and Air Conditioning work at the Central Control Facility.
- ARINC continues work on SCADA points list and database.
- Held bi-weekly meetings to advance design.

**Activity Next Month**

- Continue bi-weekly technical meetings to advance SCADA design.
- Continue review of Final Design.

3.3 **Tunnel Modification**

Tunnel modifications will be required on the four tunnels located in San Francisco. This effort is needed to accommodate the required clearance for the OCS to support electrification of the corridor. Outside of the PCEP scope, Caltrain Engineering has requested the PCEP team to manage completion of design and construction for the Tunnel 1 and Tunnel 4 Drainage Rehab Project. The Drainage Rehab Project is funded separately from PCEP. Construction will occur concurrently with the Electrification DB contractor’s efforts in Segment 1.

**Activity This Month**

- Opened bids on May 11. Received a single bid for the tunnel notching and drainage improvements with an option for the OCS in the tunnels.
- Project team reviewed and evaluated the bid for responsiveness and potential for reduced costs.

**Activity Next Month**

- Negotiate bid amount with low bidder, and award Tunnel Contract.
4.0 ELECTRIC MULTIPLE UNITS

This section reports on the progress of the Electric Multiple Units procurement and the Centralized Equipment Maintenance and Operations Facility (CEMOF) modifications.

4.1 Electric Multiple Units

The EMU procurement component of the PCEP consists of the purchase of 96 Stadler EMUs. The EMUs will consist of both cab and non-cab units configured as 16 six-car fixed trainsets. Power will be obtained from the OCS via roof-mounted pantographs, which will power the electric traction motors. The EMUs will replace a portion of the existing diesel locomotives and passenger cars currently in use by Caltrain.

Activity This Month

- The Final Design Phase of EMU systems continues to near completion, with exception of Truck (bogie) Assembly, and software intensive systems (Monitoring and Diagnostic and Train Control Systems). The FDR of the Truck Assembly is scheduled for October 2018 and software intensive systems are scheduled for December 2019.
- Stadler continues to have discussions with Wabtec as the Interoperable Electronic Train Management System (I-ETMS) supplier for carborne PTC equipment. Face-to-face subcontract negotiations between Stadler and Wabtec are tentatively scheduled for late June/early July. Technical incompatibilities between the EMU and Wabtec equipment are being resolved.
- EMU design coordination discussions continue with representatives from Caltrain Operations and Maintenance, Caltrain Public Outreach, the FRA, the FTA Project Management Oversight Contractor, Safety and Quality Assurance personnel, and PCEP Program Scheduling.
- The PCEP Team continues to address systemwide interface issues involving the emerging EMU design, existing Caltrain wayside infrastructure, and emerging Electrification Project designs.
- First Article Inspection (FAI) of Cab Car carshell was successfully completed.

Activity Next Month

- Complete FDRs, including the Truck (bogie) Assembly, with exception of those systems heavily dependent on software development (e.g., Monitor and Diagnostic System and Train Control).
- Carshell FAI paint process scheduled for June 8, 2018.
- Third Cab Car shell delivered to facility for structural strength and crash energy management design validation testing. Testing to commence week of June 7 for scheduled test duration of 10 weeks.
- Series of meetings with Stadler the week of June 18.
- Continue work with the Federal Railroad Administration (FRA) on EMU compliance issues.
4.2 Centralized Equipment Maintenance and Operations Facility Modifications

The CEMOF Upgrade project will provide work areas for performing maintenance on the new EMUs.

**Activity This Month**

- Finalized Invitation for Bid (IFB) package after PCEP and Caltrain final reviews.

**Activity Next Month**

- Release of IFB to prospective bidders scheduled for June 26.
5.0 SAFETY

Safety and Security requirements and plans are necessary to comply with applicable laws and regulations related to safety, security, and emergency response activities. Safety staff coordinates with contractors to review and plan the implementation of contract program safety requirements. Safety project coordination meetings continue to be conducted on a monthly basis to promote a clear understanding of project safety requirements as defined in contract provisions and program safety documents.

Activity This Month

- Co-chaired the monthly project DB Safety and Security Certification meeting, and the Fire/Life Safety Committee meeting. Participated in the Capital Projects Safety Committee meeting.
- Project staff provided input and continued its participation in the BBII monthly “All Hands” contractor workforce safety meetings. Safety communication with project field staff on all work shifts continues on an ongoing basis to discuss project related hazards and mitigation initiatives.
- Continued to provide input and oversight of the contractor SSWP safety provisions and ongoing safety construction oversight and inspections.
- Reviewed and commented on proposed design variance requests associated with a potential impact on project safety.
- Coordinated with EMU and CEMOF design staff and updated the hazard analysis of the proposed EMU electrification work flow processes at the vehicle equipment maintenance facility.
- Provided inspection of new contractor equipment to be used on the ROW prior to being placed into service.
- Participated in weekly project coordination meetings with the contractor to review open issues and recommended action items.
- Coordinated with the Transit Deputy Sheriff’s Office in addressing security concerns at the TPS-2 construction site.

Activity Next Month

- Monthly safety communication meetings continue to be scheduled for the Project Safety and Security Certification Committee, Fire/Life Safety Committee, and other project-related contractor and JPB safety meetings to discuss safety priorities.
- Continue focus on performing site safety inspections on the OCS foundation, pole installations, potholing, and tree trimming field work to assess safety work practices and identify additional opportunities for improvement. Conduct contractor equipment inspections.
- Finalize the Hazards Analysis on the electrification of CEMOF shop to ensure safety while performing maintenance on the EMUs.
- Participate in the FTA PCEP quarterly meeting update.
- In partnership with the contractor, assess the status and reinforce the application of project safety measures initiated as a result of prior incidents.
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6.0 QUALITY ASSURANCE

The Quality Assurance (QA) staff performs technical reviews for planning, implementing, evaluating, and maintaining an effective program to verify that all equipment, structures, components, systems, and facilities are designed, procured, constructed, installed, and maintained in accordance with established criteria and applicable codes and standards throughout the design, construction, startup and commissioning of the PCEP.

Activity This Month

- Staff meetings with BBII QA/QC management representatives continue weekly.
- Continued review of BBII-generated Nonconformance Reports (NCR) and Construction Discrepancy Reports for proper discrepancy condition, discrepancy cause, disposition, corrective and preventive action and verification of closure.
- Continued review and approval of Design Variance Requests for BBII and PGH Wong for QA/QC and inspection issues/concerns.
- Continued review of BBII QC Inspectors Daily Reports, Construction Quality Control Reports and Surveillance Reports for work scope, performance of required duties, adequacy, non-conformances, test/inspection results, follow up on unresolved issues, and preciseness.
- Continued review of BBII Material Receipt Reports, Certificates of Conformance, Certified Tests Reports, and Certificates of Analysis to ensure delivered project materials conform to specifications, and that contractually required quality and test support documents are adequate and reflect concise conditions per the purchase order requirements.
- Regularly scheduled design reviews and surveillances began on project design packages and will continue through the summer of 2018.
- Continued review of Stadler QA activities, including: NCR review, Inspection Exception Reports, Car History Reports and Weekly Status Reports.
Table 6-1 below provides details on the status of audits performed through the reporting period.

**Table 6-1 Quality Assurance Audit Summary**

<table>
<thead>
<tr>
<th>Quality Assurance Activity</th>
<th>This Reporting Period</th>
<th>Total to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audits Conducted</td>
<td>0</td>
<td>59</td>
</tr>
</tbody>
</table>

**Audit Findings**

| Audit Findings Issued      | 0                     | 43            |
| Audit Findings Open        | 0                     | 0             |
| Audit Findings Closed      | 0                     | 43            |

**Non-Conformances**

| Non-Conformances Issued    | 0                     | 7             |
| Non-Conformances Open      | 0                     | 0             |
| Non-Conformances Closed    | 0                     | 7             |

**Activity Next Month**

- Six audits are planned and scheduled: three design packages, BBII Field Activities, Keller Industries, and Oldcastle.
7.0 SCHEDULE

The current Master Program Schedule (MPS) reflects a Revenue Service Date (RSD) of December 2021, without adjustment for contingency. This is consistent with the revised baseline established in November 2017. With the addition of approximately five months of contingency to account for potential risk to the project, the RSD is anticipated as April 2022. Due to FTA contingency requirements, an FFGA RSD will also be tracked. This date is forecast as August 22, 2022 and represents the final milestone in the Program Plan.

The program critical path runs through PG&E design and construction to provide permanent power, and concludes with pre-revenue testing. The near-critical path runs through manufacturing and testing of EMU trainsets. There is no change to the critical and near-critical paths from the prior reporting month.

Shown below, Table 7-1 indicates major milestone dates for the MPS. Items listed in Table 7-2 reflect the critical path activities/milestones for the PCEP. Table 7-3 lists near-critical activities on the horizon.

Notable Variances

BBII is currently reporting an overall delay to substantial completion, including the intermediate milestone of Segment 4/Test Track (first eight miles of electrification) completion. This delay is being evaluated by the BBII and JPB and does not constitute a schedule extension for the program at this time.

Table 7-1 Schedule Status

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Program Plan</th>
<th>Progress Schedule (May 2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Eight Miles of Electrification Complete to Begin Testing</td>
<td>11/21/2019</td>
<td>05/10/2020¹</td>
</tr>
<tr>
<td>Arrival of First Vehicle at JPB</td>
<td>07/29/2019</td>
<td>07/15/2019</td>
</tr>
<tr>
<td>PG&amp;E Provides Permanent Power</td>
<td>09/09/2021</td>
<td>09/09/2021</td>
</tr>
<tr>
<td>Start Pre-Revenue Testing</td>
<td>09/10/2021</td>
<td>09/10/2021</td>
</tr>
<tr>
<td>RSD (w/o Risk Contingency)</td>
<td>12/09/2021</td>
<td>12/09/2021</td>
</tr>
<tr>
<td>RSD (w/ Risk Contingency)</td>
<td>04/22/2022</td>
<td>04/22/2022</td>
</tr>
<tr>
<td>FFGA RSD</td>
<td>08/22/2022</td>
<td>08/22/2022</td>
</tr>
</tbody>
</table>

¹ Dates may shift slightly as the update of this month’s Progress Schedule is still in progress.
² See “Notable Variances” above for explanation on date shift.
### Table 7-2 Critical Path Summary

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG&amp;E Final Design and Construction to provide Permanent Power</td>
<td>April 2016</td>
<td>09/09/2021</td>
</tr>
<tr>
<td>Pre-Revenue Testing</td>
<td>09/10/2021</td>
<td>12/09/2021</td>
</tr>
<tr>
<td>RSD w/out Risk Contingency(^1)</td>
<td>12/09/2021</td>
<td>12/09/2021</td>
</tr>
<tr>
<td>RSD w/ Risk Contingency(^1)</td>
<td>04/22/2022</td>
<td>04/22/2022</td>
</tr>
</tbody>
</table>

Note:

\(^1\) Milestone activity.

### Table 7-3 Near-Term, Near-Critical with Less Than Three Months of Float

<table>
<thead>
<tr>
<th>Work Breakdown Structure</th>
<th>Activity</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicles</td>
<td>EMU Manufacturing and Testing</td>
<td>Project Delivery</td>
</tr>
</tbody>
</table>
8.0 BUDGET AND EXPENDITURES

The summary of overall budget and expenditure status for the PCEP is shown in the following tables. Table 8-1 reflects the Electrification budget, Table 8-2 reflects the EMU budget, and Table 8-3 reflects the overall project budget.

### Table 8-1 Electrification Budget & Expenditure Status

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Budget (A)</th>
<th>Current Budget (B)</th>
<th>Cost This Month (C)</th>
<th>Cost To Date (D)</th>
<th>Estimate To Complete (E)</th>
<th>Estimate At Completion (F) = (D) + (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELECTRIFICATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrification</td>
<td>$ 696,610,558</td>
<td>$ 707,037,206</td>
<td>$ 4,929,082</td>
<td>$ 215,408,742</td>
<td>$ 491,628,464</td>
<td>$ 707,037,206</td>
</tr>
<tr>
<td>SCADA</td>
<td>$ -</td>
<td>$ 3,446,917</td>
<td>$ -</td>
<td>$ 1,378,767</td>
<td>$ 2,068,150</td>
<td>$ 3,446,917</td>
</tr>
<tr>
<td>Tunnel Modifications</td>
<td>$ 11,029,649</td>
<td>$ 11,029,649</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 11,029,649</td>
<td>$ 11,029,649</td>
</tr>
<tr>
<td>Real Estate</td>
<td>$ 28,503,369</td>
<td>$ 28,503,369</td>
<td>$ 189,429</td>
<td>$ 13,709,098</td>
<td>$ 14,794,271</td>
<td>$ 28,503,369</td>
</tr>
<tr>
<td>Management Oversight</td>
<td>$ 141,506,257</td>
<td>$ 141,526,164</td>
<td>$ 1,587,363</td>
<td>$ 87,009,965</td>
<td>$ 54,516,199</td>
<td>$ 141,526,164</td>
</tr>
<tr>
<td>Executive Management</td>
<td>$ 7,452,866</td>
<td>$ 7,452,866</td>
<td>$ 174,695</td>
<td>$ 4,559,326</td>
<td>$ 2,893,540</td>
<td>$ 7,452,866</td>
</tr>
<tr>
<td>Planning</td>
<td>$ 7,281,997</td>
<td>$ 7,281,997</td>
<td>$ 51,713</td>
<td>$ 5,428,289</td>
<td>$ 1,853,708</td>
<td>$ 7,281,997</td>
</tr>
<tr>
<td>Community Relations</td>
<td>$ 2,789,663</td>
<td>$ 2,789,663</td>
<td>$ 10,749</td>
<td>$ 1,233,674</td>
<td>$ 1,555,989</td>
<td>$ 2,789,663</td>
</tr>
<tr>
<td>Safety &amp; Security</td>
<td>$ 2,421,783</td>
<td>$ 2,421,783</td>
<td>$ 61,110</td>
<td>$ 1,362,445</td>
<td>$ 1,059,338</td>
<td>$ 2,421,783</td>
</tr>
<tr>
<td>Project Management Services</td>
<td>$ 19,807,994</td>
<td>$ 19,807,994</td>
<td>$ 111,125</td>
<td>$ 9,498,072</td>
<td>$ 10,309,922</td>
<td>$ 19,807,994</td>
</tr>
<tr>
<td>Engineering &amp; Construction</td>
<td>$ 11,805,793</td>
<td>$ 11,805,793</td>
<td>$ 216,902</td>
<td>$ 4,002,634</td>
<td>$ 7,803,159</td>
<td>$ 11,805,793</td>
</tr>
<tr>
<td>Electrification Eng &amp; Mgmt</td>
<td>$ 50,461,707</td>
<td>$ 50,461,707</td>
<td>$ 568,170</td>
<td>$ 26,483,542</td>
<td>$ 23,978,165</td>
<td>$ 50,461,707</td>
</tr>
<tr>
<td>IT Support</td>
<td>$ 312,080</td>
<td>$ 331,987</td>
<td>$ -</td>
<td>$ 331,987</td>
<td>$ 0</td>
<td>$ 331,987</td>
</tr>
<tr>
<td>Operations Support</td>
<td>$ 1,445,867</td>
<td>$ 1,445,867</td>
<td>$ 38,862</td>
<td>$ 693,500</td>
<td>$ 752,367</td>
<td>$ 1,445,867</td>
</tr>
<tr>
<td>General Support</td>
<td>$ 4,166,577</td>
<td>$ 4,166,577</td>
<td>$ 112,999</td>
<td>$ 2,813,657</td>
<td>$ 1,352,920</td>
<td>$ 4,166,577</td>
</tr>
<tr>
<td>Budget / Grants / Finance</td>
<td>$ 1,229,345</td>
<td>$ 1,229,345</td>
<td>$ 38,696</td>
<td>$ 801,110</td>
<td>$ 428,234</td>
<td>$ 1,229,345</td>
</tr>
<tr>
<td>Legal</td>
<td>$ 2,445,646</td>
<td>$ 2,445,646</td>
<td>$ 59,013</td>
<td>$ 2,772,789</td>
<td>($327,142)</td>
<td>$ 2,445,646</td>
</tr>
<tr>
<td>Other Direct Costs</td>
<td>$ 5,177,060</td>
<td>$ 5,177,060</td>
<td>$ 143,330</td>
<td>$ 2,695,582</td>
<td>$ 2,481,478</td>
<td>$ 5,177,060</td>
</tr>
<tr>
<td>TASI Support</td>
<td>$ 55,275,084</td>
<td>$ 55,275,084</td>
<td>$ 858,566</td>
<td>$ 9,840,748</td>
<td>$ 45,434,336</td>
<td>$ 55,275,084</td>
</tr>
<tr>
<td>Insurance</td>
<td>$ 3,500,000</td>
<td>$ 4,305,769</td>
<td>$ -</td>
<td>$ 2,555,769</td>
<td>$ 1,750,000</td>
<td>$ 4,305,769</td>
</tr>
<tr>
<td>Environmental Mitigations</td>
<td>$ 15,798,320</td>
<td>$ 14,972,644</td>
<td>$ -</td>
<td>$ 712,000</td>
<td>$ 14,260,644</td>
<td>$ 14,972,644</td>
</tr>
<tr>
<td>Required Projects</td>
<td>$ 17,337,378</td>
<td>$ 15,562,378</td>
<td>$ 2,273</td>
<td>$ 437,803</td>
<td>$ 15,124,575</td>
<td>$ 15,562,378</td>
</tr>
<tr>
<td>Maintenance Training</td>
<td>$ 1,021,808</td>
<td>$ 1,021,808</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 1,021,808</td>
<td>$ 1,021,808</td>
</tr>
<tr>
<td>Finance Charges</td>
<td>$ 5,056,838</td>
<td>$ 5,056,838</td>
<td>$ 98,363</td>
<td>$ 1,981,865</td>
<td>$ 3,074,973</td>
<td>$ 5,056,838</td>
</tr>
<tr>
<td>Contingency</td>
<td>$ 276,970,649</td>
<td>$ 233,609,002</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 196,531,669</td>
<td>$ 196,531,669</td>
</tr>
<tr>
<td>Forecasted Costs and Changes</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 37,077,333</td>
<td>$ 37,077,333</td>
</tr>
<tr>
<td><strong>ELECTRIFICATION SUBTOTAL</strong></td>
<td>$ 1,316,125,208</td>
<td>$ 1,316,125,208</td>
<td>$ 9,650,777</td>
<td>$ 357,377,514</td>
<td>$ 958,747,693</td>
<td>$ 1,316,125,208</td>
</tr>
</tbody>
</table>

Notes regarding tables above:

1. “Current Budget” includes executed change orders and awarded contracts.
2. Column C "Cost This Month" represents the cost of work performed this month.
3. Column D "Cost To Date" includes actuals (amount paid) and accruals (amount of work performed) to date.
4. Cost To Date for "Electrification" includes 5% for Contractor’s retention until authorization of retention release.
5. The agency labor is actual through April 2018 and accrued for May 2018.
### Table 8-2 EMU Budget & Expenditure Status

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Budget</th>
<th>Current Budget</th>
<th>Cost This Month</th>
<th>Cost To Date</th>
<th>Estimate To Complete</th>
<th>Estimate At Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(A)</td>
<td>(B)¹</td>
<td>(C)²</td>
<td>(D)³</td>
<td>(E)</td>
<td>(F) = (D) + (E)</td>
</tr>
<tr>
<td>EMU</td>
<td>$ 550,899,459</td>
<td>$ 550,564,069</td>
<td>$ 26,359,284</td>
<td>$ 88,174,385</td>
<td>$ 462,389,684</td>
<td>$ 550,564,069</td>
</tr>
<tr>
<td>CEMOF Modifications</td>
<td>$ 1,344,000</td>
<td>$ 1,344,000</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 1,344,000</td>
<td>$ 1,344,000</td>
</tr>
<tr>
<td>Management Oversight (M)</td>
<td>$ 64,139,103</td>
<td>$ 64,139,103</td>
<td>$ 728,709</td>
<td>$ 28,044,171</td>
<td>$ 36,094,933</td>
<td>$ 64,139,103</td>
</tr>
<tr>
<td>Executive Management</td>
<td>$ 5,022,302</td>
<td>$ 5,022,302</td>
<td>$ 138,544</td>
<td>$ 2,895,296</td>
<td>$ 2,127,006</td>
<td>$ 5,022,302</td>
</tr>
<tr>
<td>Community Relations</td>
<td>$ 1,685,614</td>
<td>$ 1,685,614</td>
<td>$ 10,683</td>
<td>$ 432,014</td>
<td>$ 1,253,600</td>
<td>$ 1,685,614</td>
</tr>
<tr>
<td>Safety &amp; Security</td>
<td>$ 556,067</td>
<td>$ 556,067</td>
<td>$ 12,796</td>
<td>$ 344,965</td>
<td>$ 211,102</td>
<td>$ 556,067</td>
</tr>
<tr>
<td>Project Mgmt Services</td>
<td>$ 13,275,280</td>
<td>$ 13,275,280</td>
<td>$ 68,108</td>
<td>$ 6,239,254</td>
<td>$ 7,036,027</td>
<td>$ 13,275,280</td>
</tr>
<tr>
<td>Eng &amp; Construction</td>
<td>$ 89,113</td>
<td>$ 89,113</td>
<td>$ -</td>
<td>$ 23,817</td>
<td>$ 65,296</td>
<td>$ 89,113</td>
</tr>
<tr>
<td>EMU Eng &amp; Mgmt</td>
<td>$ 32,082,556</td>
<td>$ 32,082,556</td>
<td>$ 299,441</td>
<td>$ 13,064,541</td>
<td>$ 19,018,015</td>
<td>$ 32,082,556</td>
</tr>
<tr>
<td>IT Support</td>
<td>$ 1,027,272</td>
<td>$ 1,027,272</td>
<td>$ 13,213</td>
<td>$ 414,473</td>
<td>$ 612,799</td>
<td>$ 1,027,272</td>
</tr>
<tr>
<td>Operations Support</td>
<td>$ 1,878,589</td>
<td>$ 1,878,589</td>
<td>$ -</td>
<td>$ 277,200</td>
<td>$ 1,601,388</td>
<td>$ 1,878,589</td>
</tr>
<tr>
<td>General Support</td>
<td>$ 2,599,547</td>
<td>$ 2,599,547</td>
<td>$ 57,704</td>
<td>$ 1,228,803</td>
<td>$ 1,370,744</td>
<td>$ 2,599,547</td>
</tr>
<tr>
<td>Budget / Grants / Finance</td>
<td>$ 712,123</td>
<td>$ 712,123</td>
<td>$ 26,492</td>
<td>$ 462,267</td>
<td>$ 249,857</td>
<td>$ 712,123</td>
</tr>
<tr>
<td>Legal</td>
<td>$ 1,207,500</td>
<td>$ 1,207,500</td>
<td>$ 10,911</td>
<td>$ 1,006,383</td>
<td>$ 201,117</td>
<td>$ 1,207,500</td>
</tr>
<tr>
<td>Other Direct Costs</td>
<td>$ 4,003,139</td>
<td>$ 4,003,139</td>
<td>$ 90,816</td>
<td>$ 1,655,157</td>
<td>$ 2,347,982</td>
<td>$ 4,003,139</td>
</tr>
<tr>
<td>TASI Support</td>
<td>$ 2,740,000</td>
<td>$ 2,740,000</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 2,740,000</td>
<td>$ 2,740,000</td>
</tr>
<tr>
<td>Required Projects</td>
<td>$ 4,500,000</td>
<td>$ 4,500,000</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 4,500,000</td>
<td>$ 4,500,000</td>
</tr>
<tr>
<td>Finance Charges</td>
<td>$ 1,941,800</td>
<td>$ 1,941,800</td>
<td>$ 60,287</td>
<td>$ 1,202,897</td>
<td>$ 738,903</td>
<td>$ 1,941,800</td>
</tr>
<tr>
<td>Contingency</td>
<td>$ 38,562,962</td>
<td>$ 38,898,352</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 37,962,352</td>
<td>$ 37,962,352</td>
</tr>
<tr>
<td>Forecasted Costs and Changes</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 936,000</td>
<td>$ 936,000</td>
</tr>
<tr>
<td><strong>EMU SUBTOTAL</strong></td>
<td><strong>$ 664,127,325</strong></td>
<td><strong>$ 664,127,325</strong></td>
<td><strong>$ 27,148,280</strong></td>
<td><strong>$ 117,421,452</strong></td>
<td><strong>$ 546,705,872</strong></td>
<td><strong>$ 664,127,325</strong></td>
</tr>
</tbody>
</table>

Notes regarding tables above:

1. "Current Budget" includes executed change orders and awarded contracts.
2. Column C "Cost This Month" represents the cost of work performed this month.
3. Column D "Cost To Date" includes actuals (amount paid) and accruals (amount of work performed) to date.
4. The agency labor is actual through April 2018 and accrued for May 2018.

### Table 8-3 PCEP Budget & Expenditure Status

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Budget</th>
<th>Current Budget</th>
<th>Cost This Month</th>
<th>Cost To Date</th>
<th>Estimate To Complete</th>
<th>Estimate At Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(A)</td>
<td>(B)¹</td>
<td>(C)²</td>
<td>(D)³</td>
<td>(E)</td>
<td>(F) = (D) + (E)</td>
</tr>
<tr>
<td>Electrification Subtotal</td>
<td>$ 1,316,125,208</td>
<td>$ 1,316,125,208</td>
<td>$ 9,650,777</td>
<td>$ 357,377,514</td>
<td>$ 958,747,693</td>
<td>$ 1,316,125,208</td>
</tr>
<tr>
<td><strong>PCEP TOTAL</strong></td>
<td><strong>$ 1,980,252,533</strong></td>
<td><strong>$ 1,980,252,533</strong></td>
<td><strong>$ 36,799,057</strong></td>
<td><strong>$ 474,798,967</strong></td>
<td><strong>$ 1,505,453,566</strong></td>
<td><strong>$ 1,980,252,533</strong></td>
</tr>
</tbody>
</table>

Notes regarding tables above:

4. Column B "Current Budget" includes executed change orders and awarded contracts.
5. Column C "Cost This Month" represents the cost of work performed this month.
6. Column D "Cost To Date" includes actuals (amount paid) and accruals (amount of work performed) to date.

Appendix D includes costs broken down by Standard Cost Code (SCC) format. This format is required for reporting of costs to the FTA. The overall project total in the SCC format is lower than the project costs in table 8-3. This is due to the exclusion of costs incurred prior to the project entering the Project Development phase.
9.0 CHANGE MANAGEMENT

The change management process establishes a formal administrative work process associated with the initiation, documentation, coordination, review, approval and implementation of changes that occur during the design, construction or manufacturing of the PCEP. The change management process accounts for impacts of the changes and ensures prudent use of contingency.

Currently the three PCEP contracts are BBII, Stadler, and SCADA. Future PCEP contracts such as CEMOF Modifications and the Tunnel Notching will also follow the change management process.

A log of all executed change orders can be found in Appendix E.

Executed Contract Change Orders (CCO) This Month

Electrification Contract

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>05/31/2018</td>
<td>BBI-053-CCO-009</td>
<td>SFMTA Crossing at 16th Street</td>
<td>($685,198)</td>
<td>($685,198)</td>
</tr>
<tr>
<td>05/31/2018</td>
<td>BBI-053-CCO-012</td>
<td>Contract Incentives for 2017</td>
<td>$1,025,000</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$339,802</td>
</tr>
</tbody>
</table>

\(^1\) Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.

EMU Contract

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td></td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>$0</td>
</tr>
</tbody>
</table>

\(^1\) Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.

SCADA Contract

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td></td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>$0</td>
</tr>
</tbody>
</table>

\(^1\) Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.
10.0 FUNDING

Figure 10-1 depicts a summary of the funding plan for the PCEP. It provides a breakdown of the funding partners as well as the allocated funds. As previously noted, the JPB received approval of the FFGA from the FTA in May 2017. The Agreement provides the project with a commitment of $647 million in federal funding. To date, $172.9 million has been made available to the project by the FTA. The FTA recently released the Fiscal Year 2018 apportionments, which included the next $100 million in Core Capacity funding. JPB staff is working with FTA to make the funding available to the project.

**Figure 10-1 Funding Plan**

<table>
<thead>
<tr>
<th>Fund Source</th>
<th>Amount</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTA Core Capacity</td>
<td>$647,000,000</td>
<td>32.67%</td>
</tr>
<tr>
<td>FTA Section 5307 (EMU only)*</td>
<td>$315,000,000</td>
<td>15.91%</td>
</tr>
<tr>
<td>FTA Section 5307 (Environmental / Pre Development only)</td>
<td>$15,676,000</td>
<td>0.79%</td>
</tr>
<tr>
<td>Prop 1A</td>
<td>$600,000,000</td>
<td>30.30%</td>
</tr>
<tr>
<td>High Speed Rail Cap and Trade</td>
<td>$113,000,000</td>
<td>5.71%</td>
</tr>
<tr>
<td>Transit &amp; Intercity Rail Capital Program</td>
<td>$20,000,000</td>
<td>1.01%</td>
</tr>
<tr>
<td>Prop 1B (Public Transportation Modernization &amp; Improvement Account)</td>
<td>$8,000,000</td>
<td>0.40%</td>
</tr>
<tr>
<td>Bridge Toll Funds (RM1/RM2)</td>
<td>$39,430,000</td>
<td>1.99%</td>
</tr>
<tr>
<td>Carl Moyer</td>
<td>$20,000,000</td>
<td>1.01%</td>
</tr>
<tr>
<td>SFCTA/JMFTA**</td>
<td>$41,382,178</td>
<td>2.09%</td>
</tr>
<tr>
<td>SMCTA Measure A</td>
<td>$41,382,178</td>
<td>2.09%</td>
</tr>
<tr>
<td>VTA Measure A</td>
<td>$41,382,178</td>
<td>2.09%</td>
</tr>
<tr>
<td>Santa Clara (VTA) 7-Party MOU Contribution</td>
<td>$20,000,000</td>
<td>1.01%</td>
</tr>
<tr>
<td>San Francisco 7-Party MOU Contribution</td>
<td>$20,000,000</td>
<td>1.01%</td>
</tr>
<tr>
<td>San Mateo (SMCTA) 7-Party MOU Contribution</td>
<td>$20,000,000</td>
<td>1.01%</td>
</tr>
<tr>
<td>Caltrain Low Carbon Transit Operations Cap and Trade</td>
<td>$9,000,000</td>
<td>0.45%</td>
</tr>
<tr>
<td>Prior Local Contribution</td>
<td>$9,000,000</td>
<td>0.45%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,980,252,533</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
*Includes necessary fund transfer with SMCTA
**Includes $4M CMAQ Transfer considered part of SF local contribution
11.0 RISK MANAGEMENT

The risk management process is conducted in an iterative fashion throughout the life of the project. During this process, new risks are identified, other risks are resolved or managed, and potential impacts and severity modified based on the current situation. The Risk Management team's progress report includes a summary on the effectiveness of the Risk Management Plan, any unanticipated effects, and any correction needed to handle the risk appropriately.

The Risk Management team meets monthly to identify risks and corresponding mitigation measures. Each risk is graded based on the potential cost and schedule impacts they could have on the project. This collection of risks has the greatest potential to affect the outcome of the project and consequently is monitored most closely. For each of the noted risks, as well as for all risks on the risk register, mitigation measures have been identified and are being implemented. Progress in mitigating these risks is confirmed at monthly risk assessment meetings attended by project team management and through continuous monitoring of the Risk Management Lead.

The team has identified the following items as top risks for the project (see Appendix F for the complete Risk Table):

- BBII may be unable to develop grade crossing modifications that meet regulatory requirements prior to scheduled testing and commissioning of the system.
- A complex and diverse collection of major program elements and current Caltrain capital works projects may not be successfully integrated with existing operations and infrastructure.
- JPB may not be able to deliver work windows to contractor as dictated per contract.
- Additional work in the form of signal/pole adjustments may be required to remedy sight distance impediments arising from modifications to original design.
- Design changes may necessitate additional implementation of environmental mitigations not previously budgeted.
- Relocation of overhead utilities must precede installation of catenary wire and connections to TPSs. Relocation work will be performed by others and may not be completed to meet BBII's construction schedule.
- Collaboration across multiple disciplines to develop a customized rail activation program may fail to comprehensively address the full scope of issues required to operate and maintain an electrified railroad and decommission the current diesel fleet.
- BBII may be unable to get permits required by jurisdictions for construction in a timely manner.
- UPRR does not accept catenary pole offsets from centerline of track necessitating further negotiation or relocation of poles.
- Cost and schedule of Stadler contract could increase as a result of this change in PTC system; delay of PTC may delay acceptance of EMUs.
- Cost and schedule of BBII contract could increase as a result of this change in PTC system.
Activity This Month

- Updates were made to risk descriptions, effects, and mitigations based upon weekly input from risk owners. Monthly cycle of risk updating was completed based on schedules established in the Risk Identification and Mitigation Plan.
- Risk retirement dates were updated based upon revisions to the project schedule and input from risk owners.
- Continued weekly monitoring of risk mitigation actions and publishing of the risk register.
- The Risk Management team attended Project Delivery and Systems Integration meetings to monitor developments associated with risks and to identify new risks.

Tables 11-1 and 11-2 show the risks identified for the program. Risks are categorized as top risk, upcoming risk, and all other risks. The categories are based on a rating scale composed of schedule and cost factors. Top risks are considered to have a significantly higher than average risk grade. Upcoming risks are risks for which mitigating action must be taken within 60 days. All other risks are risks not falling into other categories.

Table 11-1 Monthly Status of Risks

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Risks</td>
<td>11</td>
</tr>
<tr>
<td>Upcoming Risks</td>
<td>13</td>
</tr>
<tr>
<td>All Other Risks</td>
<td>67</td>
</tr>
</tbody>
</table>

Total Number of Active Risks = 91
Table 11-2 Risk Classification

<table>
<thead>
<tr>
<th>Category &amp; Owner</th>
<th>Total Number of Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>67</td>
</tr>
<tr>
<td>JPB</td>
<td>49</td>
</tr>
<tr>
<td>EMU</td>
<td>13</td>
</tr>
<tr>
<td>D/B</td>
<td>13</td>
</tr>
</tbody>
</table>

Total Number of Active Risks = 91

Activity Next Month

- Conduct weekly monitoring of risk mitigation actions and continue publishing risk register.
- Update risk descriptions, effects, mitigations and retirement dates based on weekly monitoring.
12.0 ENVIRONMENTAL

12.1 Permits

The PCEP has obtained the required environmental permits from the following agencies/federal regulations: Section 106 of the National Historic Preservation Act of 1966 (NHPA), Section 7 of the Endangered Species Act (ESA), United States Army Corps of Engineers, San Francisco Bay Regional Water Quality Control Board (SFWQCB), the California Department of Fish and Wildlife, and the San Francisco Bay Conservation Development Commission.

Activity This Month

- None

Activity Next Month

- The Drainage and Stormwater Plan for Traction Power Facilities in Construction Segments 2 and 4 – Paralleling Station 7 will be submitted for review and approval by the SFWQCB in accordance with permit requirements.

12.2 Mitigation Monitoring and Reporting Program (MMRP)

The California Environmental Quality Act (CEQA) requires that a Lead Agency establish a program to monitor and report on mitigation measures that it has adopted as part of the environmental review process. The PCEP team has prepared a MMRP to ensure that mitigation measures identified in the PCEP Environmental Impact Report (EIR) are fully implemented during project implementation. PCEP will implement the mitigation measures through its own actions, those of the DB contractor and actions taken in cooperation with other agencies and entities. The status of each mitigation measure in the MMRP is included in Appendix G.

Activity This Month

- Environmental compliance monitors were present during project activities (OCS pole foundation installation, OCS pole setting, potholing for utility location, ductbank installation, tree trimming/removal, staging area development, conduit installation, concrete demolition at station platforms, etc.) occurring in areas that required monitoring. The monitoring was conducted in accordance with measures in the MMRP in an effort to minimize potential impacts on sensitive environmental resources.
- Tree trimming and removal in Segment 3.
- Noise and vibration monitoring also occurred during project activities including building, concrete and asphalt demolition at TPS-2, and non-hazardous soil was removed from the ROW.
- Pre-construction surveys for sensitive wildlife ahead of project activities occurred to help ensure no special-status species were impacted during project activities.
- Pre-construction nesting bird surveys during the nesting bird season continued (nesting bird season is defined as February 1 through August 31).
- Environmentally Sensitive Area (ESA) staking and/or fencing occurred to delineate jurisdictional waterways and other potentially sensitive areas that should be avoided during upcoming construction activities, and wildlife exclusion fencing installation and monitoring occurred adjacent to portions of the alignment designated for wildlife exclusion fencing.

- Protocol-level surveys for a sensitive avian species continued at previously identified potential habitat locations.

- Silt fencing installation occurred at equipment staging areas and the TPS-2 site in accordance with the project-specific Stormwater Pollution Prevention Plan.

- Archaeological exploratory trenching occurred prior to construction activities within and adjacent to culturally sensitive areas.

**Activity Next Month**

- Environmental compliance monitors will continue to monitor project activities occurring in areas that require monitoring in an effort to minimize potential impacts on sensitive environmental resources in accordance with the MMRP.

- Noise and vibration monitoring of project activities will continue to occur and non-hazardous soil will continue to be removed.

- Tree trimming and removal will continue in Segments 2 and 3 and biological surveyors will continue to conduct pre-construction surveys for sensitive wildlife species ahead of project activities.

- Silt fencing installation will continue.

- ESA staking will continue to occur to delineate jurisdictional waterways and other potentially sensitive areas that should be avoided during upcoming project activities.

- Wildlife exclusion fencing will continue to be installed prior to upcoming construction activities adjacent to potentially suitable habitat for sensitive wildlife species.

- Biological surveyors will continue surveys for nesting birds ahead of project activities occurring during the nesting bird season (February 1 through August 31) and biological survey teams will continue to conduct protocol-level surveys for sensitive avian species.
13.0 UTILITY RELOCATION

Implementation of the PCEP requires relocation or rerouting of both public and private utility lines and/or facilities. Utility relocation will require coordination with many entities, including regulatory agencies, public safety agencies, federal, state, and local government agencies, private and public utilities, and other transportation agencies and companies. This section describes the progress specific to the utility relocation process.

Activity This Month

- Work continued with all utilities on review of overhead utility line relocations based on the current design.
- Continued individual coordination with utility companies on relocation plans and schedule for incorporation with Master Program Schedule.
- Continued to work on relocation design review for PG&E and coordinate with PG&E on permitting and work planning.
- Continue to work with Verizon on relocation of aerial fiber. Relocation for the corridor is scheduled to be completed by the end of 2018.
- Continued PG&E relocations in S2WA4.
- Continued coordination of PG&E relocation in Segment 4.
- Hold monthly utility coordination meeting to discuss overall status and areas of potential concern from the utilities.

Activity Next Month

- Continue to coordinate with utility owners on the next steps of relocations, including support of any required design information.
- Update the relocation schedule as information becomes available from the utility owners.
- Continue review of relocation design from PG&E and coordinate with PG&E on permitting and work planning for relocations.
- Conduct monthly utility meeting with utility owners.
- Continue PG&E relocations in S2WA4 and Segment 4.
- Continue coordination and scheduling with Verizon on relocation of aerial fiber.
14.0 REAL ESTATE

The PCEP requires the acquisition of a limited amount of real estate. In general, Caltrain uses existing ROWs for the PCEP, but in certain locations, will need to acquire small portions of additional real estate to expand the ROW to accommodate installation of OCS supports (fee acquisitions or railroad easements) and associated Electrical Safety Zones (easements). There are two larger full acquisition areas required for wayside facilitates. The PCEP Real Estate team manages the acquisition of all property rights. Caltrain does not need to acquire real estate to complete the EMU procurement portion of the PCEP.

Activity This Month

- An alternate location for PS-2 has been agreed upon.
- One of the three active eminent domain actions in Segment 2 agreed to settle, with other property owners either settling or in active negotiations to settle.
- In Segment 3, three new owners reached tentative settlements.
- Staff sent one appraisal and two administrative settlement approvals to FTA.

Activity Next Month

- Negotiations for all outstanding offers will continue.
- The remaining appraisals in Segment 1 will be completed.
- Design will continue on the two parcels in Segment 3 on design hold with the hope of finalizing design.
- Staff will continue to work with PG&E and Central Concrete as design progresses.
- Design will continue on the five new parcels identified.
Table 14-1 below provides a brief summary of the Real Estate acquisition overview for the project.

Table 14-1 Real Estate Acquisition Overview

<table>
<thead>
<tr>
<th>Segment</th>
<th>No. of Parcels Needed</th>
<th>No. of Appraisals Completed</th>
<th>Offers Presented</th>
<th>Offers Accepted</th>
<th>Acquisition Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Escrow Closed</td>
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<td></td>
<td></td>
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<td>Eminent Domain</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td>Action Filed</td>
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<td>Parcel Possession</td>
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<td>24</td>
</tr>
</tbody>
</table>

Note:
During design development, the real estate requirements may adjust to accommodate design refinements. Parcel requirements will adjust accordingly. The table in this report reflects the current property needs for the Project.
*Parcels being tracked but areas are not finalized.
**PG&E covers 4 parcels.
15.0 THIRD PARTY AGREEMENTS

Third-party coordination is necessary for work impacting public infrastructure, utilities, ROW acquisitions, and others. Table 15-1 below outlines the status of necessary agreements for the PCEP.

Table 15-1 Third-Party Agreement Status

<table>
<thead>
<tr>
<th>Type</th>
<th>Agreement</th>
<th>Third-Party</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governmental Jurisdictions</td>
<td>Construction &amp; Maintenance¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>City &amp; County of San Francisco</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Brisbane</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of South San Francisco</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of San Bruno</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Millbrae</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Burlingame</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of San Mateo</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Belmont</td>
<td>Executed</td>
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</tr>
<tr>
<td></td>
<td>City of San Carlos</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Redwood City</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>City of Atherton</td>
<td>In Process</td>
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</tr>
<tr>
<td></td>
<td>County of San Mateo</td>
<td>Executed</td>
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</tr>
<tr>
<td></td>
<td>City of Menlo Park</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Palo Alto</td>
<td>In Process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Mountain View</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Sunnyvale</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Santa Clara</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>County of Santa Clara</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of San Jose</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Condemnation Authority</td>
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<tr>
<td></td>
<td>San Francisco</td>
<td>In Process</td>
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</tr>
<tr>
<td></td>
<td>San Mateo</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Santa Clara</td>
<td>Executed</td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>Infrastructure</td>
<td>PG&amp;E</td>
<td>Executed²</td>
</tr>
<tr>
<td></td>
<td>Operating Rules</td>
<td>CPUC</td>
<td>Executed</td>
</tr>
<tr>
<td>Transportation &amp; Railroad</td>
<td>Construction &amp; Maintenance</td>
<td>Bay Area Rapid Transit</td>
<td>Executed³</td>
</tr>
<tr>
<td></td>
<td>Construction &amp; Maintenance</td>
<td>California Dept. of Transportation (Caltrans)</td>
<td>Not needed⁴</td>
</tr>
<tr>
<td></td>
<td>Trackage Rights</td>
<td>UPRR</td>
<td>Executed³</td>
</tr>
</tbody>
</table>

Notes regarding table above:

¹ Agreements memorialize the parties’ consultation and cooperation, designate respective rights and obligations and ensure cooperation between the JPB and the 17 cities and three counties along the Caltrain ROW and within the PCEP limits in connection with the design and construction of the PCEP.

² The Master Agreement and Supplemental Agreements 1, 2, 3 and 5 have been executed. Supplemental Agreement 4 has JPB approval for execution by the Executive Director.

³ Utilizing existing agreements.

⁴ Caltrans Peer Process utilized. Formal agreement not needed.
16.0 GOVERNMENT AND COMMUNITY AFFAIRS

The Community Relations and Outreach team coordinates all issues with all jurisdictions, partner agencies, government organizations, businesses, labor organizations, local agencies, residents, community members, other interested parties, and the media. In addition, the team oversees the BBII's effectiveness in implementing its Public Involvement Program. The following PCEP-related external affairs meetings took place this month:

Presentations/Meetings

- San Mateo County Economic Development Association (2)
- San Mateo County Transportation Authority Citizens Advisory Committee

Third Party/Stakeholder Actions

None
17.0 DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION AND LABOR STATISTICS

BBII proposed that 5.2% of the total DB contract value ($36,223,749) would be subcontracted to DBEs. As expressed in Figure 17-1 below, to date:

- $8,780,001 has been paid to DBE subcontractors.

In order to reach the 5.2% DBE participation goal, BBII has proposed the following key actions:

“In the month of June, 2018, we continue to anticipate increasing our DBE commitments to firms who we are currently negotiating pricing on proposed work or Professional Services Agreements. Also we anticipate an upcoming award of an additional contract to a DBE firm in the area of Traffic Control services.”
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18.0 PROCUREMENT

Invitation for Bid (IFB)/Request for Qualifications (RFQ)/Request for Proposals (RFP) Issued this Month:

- None

Bids, Proposals, Quotes in Response to IFB/RFQ/RFP Received this Month:

- None

Contract Awards this Month:

- None

Work Directive (WD)/Purchase Order (PO) Awards & Amendments this Month:

- Multiple WDs & POs issued to support the program needs

In Process IFB/RFQ/RFP/Contract Amendments:

- RFP – 18-J-P-115 – On-Call Construction Management Services for PCEP
- IFB – 18-J-C-071 – CEMOF Facility Upgrades for EMUs
- RFP – 18-J-P-072 – On-Call Safety & Security Services for PCEP

Upcoming Contract Awards:

- RFP – 18-J-S-066 – Overhaul Services of Electric Locomotive for PCEP – Amtrak
- Memorandum of Understanding and Contract – 18-J-P-065 – Purchase of Electric Locomotives – Mitsui
- IFB – 18-J-C-070 – Tunnel Modifications for PCEP

Upcoming IFB/RFQ/RFP to be Issued:

- IFB – 18-J-C-071 – CEMOF Facility Modifications for PCEP
- RFP – 18-J-P-115 – On-Call Construction Management Services for PCEP
- RFP – 18-J-P-072 – On-Call Safety & Security Services for PCEP

Existing Contracts Amendments Issued:

- None
19.0 TIMELINE OF MAJOR PROJECT ACCOMPLISHMENTS

Below is a timeline showing major project accomplishments from 2001 to 2017:

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>Began federal National Environmental Policy Act (NEPA) Environmental Assessment (EA) / state EIR clearance process</td>
</tr>
<tr>
<td>2002</td>
<td>Conceptual Design completed</td>
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<tr>
<td>2004</td>
<td>Draft NEPA EA/EIR</td>
</tr>
<tr>
<td>2008</td>
<td>35% design complete</td>
</tr>
<tr>
<td>2009</td>
<td>Final NEPA EA/EIR and Finding of No Significant Impact (FONSI)</td>
</tr>
<tr>
<td>2014</td>
<td>RFQ for electrification</td>
</tr>
<tr>
<td></td>
<td>RFI for EMU</td>
</tr>
<tr>
<td>2015</td>
<td>JPB approves final CEQA EIR</td>
</tr>
<tr>
<td></td>
<td>JPB approves issuance of RFP for electrification</td>
</tr>
<tr>
<td></td>
<td>JPB approves issuance of RFP for EMU</td>
</tr>
<tr>
<td></td>
<td>Receipt of proposal for electrification</td>
</tr>
<tr>
<td></td>
<td>FTA approval of Core Capacity Project Development</td>
</tr>
<tr>
<td>2016</td>
<td>JPB approves EIR Addendum #1: PS-7</td>
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<tr>
<td></td>
<td>FTA re-evaluation of 2009 FONSI</td>
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<td></td>
<td>Receipt of electrification best and final offers</td>
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<td></td>
<td>Receipt of EMU proposal</td>
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<td></td>
<td>Application for entry to engineering to FTA</td>
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<td></td>
<td>Completed the EMU Buy America Pre-Award Audit and Certification</td>
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<td></td>
<td>Negotiations completed with Stadler for EMU vehicles</td>
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<tr>
<td></td>
<td>Negotiations completed with BBII, the apparent best-value electrification firm</td>
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<tr>
<td></td>
<td>JPB approves contract award (LNTP) BBII</td>
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<td></td>
<td>JPB approves contract award (LNTP) Stadler</td>
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<td></td>
<td>FTA approval of entry into engineering for the Core Capacity Program</td>
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<td></td>
<td>Application for FFGA</td>
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<td>2017</td>
<td>FTA finalized the FFGA for $647 million in Core Capacity funding, met all regulatory requirements including end of Congressional Review Period (February)</td>
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<tr>
<td></td>
<td>FTA FFGA executed, committing $647 million to the project (May)</td>
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<td></td>
<td>JPB approves $1.98 billion budget for PCEP (June)</td>
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<td></td>
<td>Issued NTP for EMUs to Stadler (June 1)</td>
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<tr>
<td></td>
<td>Issued NTP for electrification contract to BBII (June 19)</td>
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<tr>
<td></td>
<td>Construction began (August)</td>
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<tr>
<td></td>
<td>EMU manufacturing began (October)</td>
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<td>Issued NTP for SCADA to Rockwell Collins (ARINC) (October)</td>
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<tr>
<td></td>
<td>Issued NTP for CEMOF Facility Upgrades to HNTB (November)</td>
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<tr>
<td>2018</td>
<td>Completed all PG&amp;E agreements</td>
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Appendix A – Acronyms
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<th>Term</th>
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<th>Term</th>
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<td>Advanced Information Management</td>
<td>EIR</td>
<td>Environmental Impact Report</td>
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<td>Aeronautical Radio, Inc.</td>
<td>EOR</td>
<td>Engineer of Record</td>
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<td>EMU</td>
<td>Electric Multiple Unit</td>
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<td>California Independent System Operator</td>
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<td>Caltrain Modernization Program</td>
<td>FEIR</td>
<td>Final Environmental Impact Report</td>
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<td>FTA</td>
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<td>General Order</td>
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<td>California Public Utilities Commission</td>
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<td>IFC</td>
<td>Issued for Construction</td>
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<td>Design-Bid-Build</td>
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<td>Peninsula Corridor Joint Powers Board</td>
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<td>Preliminary Hazard Analysis</td>
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<td>TASI</td>
<td>Transit America Services Inc.</td>
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<td>Threat and Vulnerability Assessment</td>
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<td>VTA</td>
<td>Santa Clara Valley Transportation Authority</td>
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Appendix B – Funding Partner Meetings
### Funding Partner Meeting Representatives

**Updated July 25, 2017**

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<thead>
<tr>
<th>Agency</th>
<th>CHSRA</th>
<th>MTC</th>
<th>SFCTA/SFMTA/CCSF</th>
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<tr>
<td><strong>FTA Quarterly Meeting</strong></td>
<td>• Bruce Armistead</td>
<td>• Anne Richman</td>
<td>• Luis Zurinaga</td>
<td>• April Chan</td>
<td>• Jim Lawson</td>
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<tr>
<td></td>
<td>• Boris Lipkin</td>
<td>• Glen Tepke</td>
<td></td>
<td>• Peter Skinner</td>
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<tr>
<td></td>
<td>• Ben Tripousis</td>
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<tr>
<td></td>
<td>(info only)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Ian Ferrier (info only)</td>
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<tr>
<td></td>
<td>• Wai Siu (info only)</td>
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<tr>
<td><strong>Funding Partners Quarterly Meeting</strong></td>
<td>• Bruce Armistead</td>
<td>• Trish Stoops</td>
<td>• Luis Zurinaga</td>
<td>• April Chan</td>
<td>• Krishna Davey</td>
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<td></td>
<td>• Boris Lipkin</td>
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<td>• Peter Skinner</td>
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<td>• Ben Tripousis</td>
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<td></td>
<td>• John Popoff</td>
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<td>• Anne Richman</td>
<td>• Anna LaForte</td>
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<td>• Jim Lawson</td>
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<td>• Kelly Doyle</td>
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<td>• Luis Zurinaga</td>
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<td></td>
<td></td>
<td></td>
<td>• Monique Webster</td>
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<td></td>
<td></td>
<td></td>
<td>• Ariel Espiritu Santo</td>
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<td><strong>Change Management Board (monthly)</strong></td>
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<td></td>
<td>• Boris Lipkin</td>
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<td>• Tilly Chang</td>
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<td><strong>Master Program Schedule Update (monthly)</strong></td>
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<td>• Trish Stoops</td>
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<td>• Trish Stoops</td>
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<td>• Wai Siu</td>
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<td><strong>PCEP Delivery Coordination Meeting (bi-weekly)</strong></td>
<td>• Ian Ferrier</td>
<td>• Trish Stoops</td>
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<td>01-May-14 A</td>
<td>02-Jul-18 A</td>
</tr>
<tr>
<td>REAL ESTATE ACQUISITION</td>
<td>682d</td>
<td>05-Nov-15 A</td>
<td>01-Jul-18 A</td>
</tr>
<tr>
<td>SEGMENT 1</td>
<td>30d</td>
<td>01-Jun-14 A</td>
<td>13-Jul-14 A</td>
</tr>
<tr>
<td>SEGMENT 2</td>
<td>484d</td>
<td>04-Aug-16 A</td>
<td>02-Jul-16 A</td>
</tr>
<tr>
<td>SEGMENT 3</td>
<td>253d</td>
<td>05-Jul-17 A</td>
<td>06-May-17 A</td>
</tr>
<tr>
<td>SEGMENT 4</td>
<td>633d</td>
<td>05-Nov-15 A</td>
<td>01-Jun-16 A</td>
</tr>
<tr>
<td>OVERHEAD UTILITY RELOCATION</td>
<td>824d</td>
<td>10-Mar-17 A</td>
<td>08-Jun-20 A</td>
</tr>
<tr>
<td>SILICON VALLEY POWER (SVP)</td>
<td>388d</td>
<td>08-Jul-17 A</td>
<td>16-Jan-19 A</td>
</tr>
<tr>
<td>PG&amp;E</td>
<td>491d</td>
<td>13-Mar-17 A</td>
<td>15-Feb-19 A</td>
</tr>
<tr>
<td>CITY OF PALO ALTO (CoPA)</td>
<td>704d</td>
<td>10-Mar-17 A</td>
<td>18-Oct-19 A</td>
</tr>
<tr>
<td>AT&amp;T</td>
<td>824d</td>
<td>10-Mar-17 A</td>
<td>08-Jun-20 A</td>
</tr>
<tr>
<td>PG&amp;E INFRASTRUCTURE</td>
<td>1151d</td>
<td>01-Mar-17 A</td>
<td>09-Sep-21 A</td>
</tr>
<tr>
<td>INTERCONNECT (Supporting TPS-2)</td>
<td>171d</td>
<td>01-Mar-17 A</td>
<td>31-Oct-17 A</td>
</tr>
<tr>
<td>INTERIM POWER</td>
<td>255d</td>
<td>01-Aug-17 A</td>
<td>15-Aug-18 A</td>
</tr>
<tr>
<td>DESIGN &amp; PERMITTING</td>
<td>159d</td>
<td>01-Aug-17 A</td>
<td>16-Mar-18 A</td>
</tr>
<tr>
<td>CONSTRUCTION</td>
<td>107d</td>
<td>16-Mar-18 A</td>
<td>15-Aug-18 A</td>
</tr>
<tr>
<td>PERMANENT POWER</td>
<td>1044d</td>
<td>01-Aug-17 A</td>
<td>09-Sep-21 A</td>
</tr>
<tr>
<td>DESIGN &amp; PERMITTING</td>
<td>309d</td>
<td>01-Aug-17 A</td>
<td>15-Jan-19 A</td>
</tr>
<tr>
<td>CONSTRUCTION</td>
<td>675d</td>
<td>16-Jan-19 A</td>
<td>09-Sep-21 A</td>
</tr>
<tr>
<td>SCADA</td>
<td>1201d</td>
<td>30-Mar-15 A</td>
<td>22-Jul-20 A</td>
</tr>
<tr>
<td>PREPARE SOLE SOURCE &amp; AWARD</td>
<td>649d</td>
<td>30-Mar-15 A</td>
<td>30-Oct-17 A</td>
</tr>
<tr>
<td>DESIGN</td>
<td>170d</td>
<td>16-Oct-17 A</td>
<td>15-Jun-18 A</td>
</tr>
<tr>
<td>IMPLEMENTATION, TEST, INSTALL &amp; CUTOVER</td>
<td>532d</td>
<td>19-Jun-18 A</td>
<td>20-Jul-20 A</td>
</tr>
<tr>
<td>CEMOF</td>
<td>528d</td>
<td>16-Nov-17 A</td>
<td>17-Oct-19 A</td>
</tr>
<tr>
<td>DESIGN</td>
<td>153d</td>
<td>16-Nov-17 A</td>
<td>25-Jun-18 A</td>
</tr>
<tr>
<td>BID &amp; AWARD</td>
<td>71d</td>
<td>26-Jun-18 A</td>
<td>04-Oct-18 A</td>
</tr>
<tr>
<td>CONSTRUCTION</td>
<td>392d</td>
<td>01-Jun-18 A</td>
<td>17-Oct-19 A</td>
</tr>
<tr>
<td>TUNNEL MODIFICATION</td>
<td>1169d</td>
<td>31-Oct-14 A</td>
<td>24-May-19 A</td>
</tr>
<tr>
<td>DESIGN</td>
<td>849d</td>
<td>31-Oct-14 A</td>
<td>22-Feb-18 A</td>
</tr>
<tr>
<td>BID &amp; AWARD</td>
<td>66d</td>
<td>23-Feb-18 A</td>
<td>25-May-18 A</td>
</tr>
<tr>
<td>CONSTRUCTION</td>
<td>233d</td>
<td>26-Jun-18 A</td>
<td>28-May-19 A</td>
</tr>
<tr>
<td>ELECTRIC LOCOMOTIVE</td>
<td>520d</td>
<td>01-Mar-17 A</td>
<td>08-Mar-19 A</td>
</tr>
<tr>
<td>BID &amp; AWARD</td>
<td>348d</td>
<td>01-Mar-17 A</td>
<td>29-Jun-18 A</td>
</tr>
<tr>
<td>REHAB / TEST TRAIN / SHIP</td>
<td>172d</td>
<td>02-Jul-18 A</td>
<td>06-Mar-19 A</td>
</tr>
<tr>
<td>EMU</td>
<td>1917d</td>
<td>01-May-14 A</td>
<td>03-Sep-21 A</td>
</tr>
<tr>
<td>DEVELOP RFP, BID &amp; AWARD</td>
<td>612d</td>
<td>01-May-14 A</td>
<td>02-Sep-16 A</td>
</tr>
<tr>
<td>DESIGN</td>
<td>870d</td>
<td>06-Sep-16 A</td>
<td>06-Jun-20 A</td>
</tr>
<tr>
<td>PROCUREMENT (Material)</td>
<td>806d</td>
<td>16-Jan-17 A</td>
<td>17-Feb-20 A</td>
</tr>
<tr>
<td>MANUFACTURING &amp; TESTING</td>
<td>989d</td>
<td>04-Dec-17 A</td>
<td>03-Sep-21 A</td>
</tr>
</tbody>
</table>
Appendix D – Standard Cost Codes
Peninsula Corridor Electrification Project
Monthly Progress Report

Description of Work

Approved Budget
(A)

Cost This Month
(B)

Cost To Date
(C)

Estimate To
Complete
(D)

$
$
$
$
$
$
$
$
$
$
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$
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$
$
$
$

$
14,356,739 $
14,356,739
$
2,600,000 $
2,600,000
$
8,110,649 $
8,110,649
$
3,646,090 $
3,646,090
$
2,265,200 $
2,265,200
$
1,344,000 $
1,344,000
$
421,200 $
421,200
$
500,000 $
500,000
$
213,100,285 $
284,287,151
$
2,522,518 $
3,252,685
$
85,352,782 $
107,455,599
$
(0) $
(0)
$
2,200,000 $
2,200,000
$
32,221,708 $
32,679,208
$
568,188 $
568,188
$
740,933 $
740,933
$
284,094 $
284,094
$
69,050,062 $
116,946,444
$
20,160,000 $
20,160,000
$
473,947,537 $
498,716,494
$
100,289,149 $
101,289,149
$
- $
$
23,879,905 $
23,879,905
$
1,140,000 $
1,140,000
$
65,467,590 $
70,671,121
$
28,464,560 $
28,464,560
$
239,397,876 $
257,963,302
$
7,745,157 $
7,745,157
$
5,455,000 $
5,455,000
$
2,090,298 $
2,090,298
$
18,000 $
18,000
$
24,084,215 $
35,675,084
$
14,414,641 $
25,927,074
$
8,748,010 $
8,748,010
$
921,565 $
1,000,000
$
515,684,444 $
625,755,807
$
479,696,539 $
589,767,901
$
9,083,974 $
9,083,974
$
8,140,000 $
8,140,000
$
18,763,931 $
18,763,931
$
126,747,669 $
331,162,222
$
(149,830) $
130,350
$
33,271,176 $
187,397,973
$
1,320,900 $
1,320,900
$
32,429,329 $
72,910,901
$
9,270,000 $
9,270,000
$
27,693,686 $
31,376,420
$
11,838,529 $
11,838,529
$
1,750,000 $
4,305,769
$
3,066,985 $
6,341,599
$
556,000 $
556,000
$
3,274,937 $
3,287,824
$
1,797,957 $
1,797,957
$
628,000 $
628,000
$ 1,370,186,090 $ 1,792,218,696
$
131,453,600 $
131,453,600
$ 1,501,639,690 $ 1,923,672,296
$
3,813,876 $
6,998,638

10 ‐ GUIDEWAY & TRACK ELEMENTS
10.02 Guideway: At‐grade semi‐exclusive (allows cross‐traffic)
10.07 Guideway: Underground tunnel
10.07 Allocated Contingency
30 ‐ SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS
30.03 Heavy Maintenance Facility
30.03 Allocated Contingency
30.05 Yard and Yard Track
40 ‐ SITEWORK & SPECIAL CONDITIONS
40.01 Demolition, Clearing, Earthwork
40.02 Site Utilities, Utility Relocation
40.02 Allocated Contingency
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks
40.05 Site structures including retaining walls, sound walls
40.06 Pedestrian / bike access and accommodation, landscaping
40.07 Automobile, bus, van accessways including roads, parking lots
40.08 Temporary Facilities and other indirect costs during construction
40.08 Allocated Contingency
50 ‐ SYSTEMS
50.01 Train control and signals
50.01 Allocated Contingency
50.02 Traffic signals and crossing protection
50.02 Allocated Contingency
50.03 Traction power supply: substations
50.03 Allocated Contingency
50.04 Traction power distribution: catenary and third rail
50.04 Allocated Contingency
50.05 Communications
50.07 Central Control
50.07 Allocated Contingency
60 ‐ ROW, LAND, EXISTING IMPROVEMENTS
60.01 Purchase or lease of real estate
60.01 Allocated Contingency
60.02 Relocation of existing households and businesses
70 ‐ VEHICLES (96)
70.03 Commuter Rail
70.03 Allocated Contingency
70.06 Non‐revenue vehicles
70.07 Spare parts
80 ‐ PROFESSIONAL SERVICES (applies to Cats. 10‐50)
80.01 Project Development
80.02 Engineering (not applicable to Small Starts)
80.02 Allocated Contingency
80.03 Project Management for Design and Construction
80.03 Allocated Contingency
80.04 Construction Administration & Management
80.04 Allocated Contingency
80.05 Professional Liability and other Non‐Construction Insurance
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.
80.06 Allocated Contingency
80.07 Surveys, Testing, Investigation, Inspection
80.08 Start up
80.08 Allocated Contingency
Subtotal (10 ‐ 80)
90
UNALLOCATED CONTINGENCY
Subtotal (10 ‐ 90)
100
FINANCE CHARGES

$
14,256,739 $
$
2,500,000 $
$
8,110,649 $
$
3,646,090 $
$
2,265,200 $
$
1,344,000 $
$
421,200 $
$
500,000 $
$
270,176,151 $
$
3,077,685 $
$
93,455,599 $
$
(0) $
$
2,200,000 $
$
32,679,208 $
$
568,188 $
$
804,933 $
$
284,094 $
$
116,946,444 $
$
20,160,000 $
$
502,766,044 $
$
96,789,149 $
$
2,451,000 $
$
23,879,905 $
$
1,140,000 $
$
70,671,121 $
$
28,464,560 $
$
253,343,010 $
$
18,464,000 $
$
5,455,000 $
$
2,090,298 $
$
18,000 $
$
35,675,084 $
$
25,927,074 $
$
8,748,010 $
$
1,000,000 $
$
625,755,807 $
$
588,831,901 $
$
10,019,974 $
$
8,140,000 $
$
18,763,931 $
$
325,821,092 $
$
130,350 $
$
181,350,402 $
$
2,027,341 $
$
72,910,901 $
$
9,270,000 $
$
23,677,949 $
$
19,537,000 $
$
4,305,769 $
$
6,341,599 $
$
556,000 $
$
3,287,824 $
$
1,797,957 $
$
628,000 $
$ 1,776,716,117 $
$
146,956,179 $
$ 1,923,672,296 $
$
6,998,638 $

4,129,108
281,167
1,913,000
51,375
1,883,566
1,573,691
470,909
1,102,782
189,429
135,191
54,238
27,064,777
27,064,777
3,683,402
2,037,147
1,439,406
147,835
59,013
36,640,407
36,640,407
158,650

Total Project Cost (10 ‐ 100)

$ 1,930,670,934 $

36,799,057 $

Appendix D – SCC

D-1

71,186,866
730,167
22,102,818
457,500
47,896,381
24,768,956
1,000,000
5,203,531
18,565,425
11,590,869
11,512,434
78,435
110,071,362
110,071,362
204,414,553
280,180
154,126,798
40,481,571
3,682,734
2,555,769
3,274,614
12,887
422,032,606
422,032,606
3,184,762

Estimate At
Completion
(E) = (C) + (D)

425,217,368 $ 1,505,453,566 $ 1,930,670,934

May 31, 2018


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Appendix E – Change Order Logs
## Change Order Logs

### Electrification Contract

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
<th>Remaining Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/31/17</td>
<td>BBI-053-CCO-001</td>
<td>Track Access Delays Q4 2016</td>
<td>$85,472</td>
<td>0.25%</td>
<td>$34,745,056</td>
</tr>
<tr>
<td>02/28/18</td>
<td>BBI-053-CCO-003</td>
<td>Deletion of Signal Cable Meggering (Testing)</td>
<td>($800,000)</td>
<td>2.30%</td>
<td>$35,545,056</td>
</tr>
<tr>
<td>02/21/18</td>
<td>BBI-053-CCO-004</td>
<td>Field Order for Differing Site Condition Work Performed on 6/19/17</td>
<td>$59,965</td>
<td>0.17%</td>
<td>$35,485,091</td>
</tr>
<tr>
<td>03/12/18</td>
<td>BBI-053-CCO-006</td>
<td>Track Access Delays for Calendar Quarter 1 2017</td>
<td>$288,741</td>
<td>0.83%</td>
<td>$35,196,350</td>
</tr>
<tr>
<td>04/24/18</td>
<td>BBI-053-CCO-002</td>
<td>Time Impact 01 Associated with Delayed NTP</td>
<td>$9,702,667</td>
<td>0.00%</td>
<td>$27,544,973</td>
</tr>
<tr>
<td>04/24/18</td>
<td>BBI-053-CCO-008</td>
<td>2016 Incentives (Safety, Quality, and Public Outreach.)</td>
<td>$750,000</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>05/31/18</td>
<td>BBI-053-CCO-009</td>
<td>16th St. Grade Crossing Work Removal from BBII Contract</td>
<td>($685,198)</td>
<td>1.97%</td>
<td>$35,881,547</td>
</tr>
<tr>
<td>05/31/18</td>
<td>BBI-053-CCO-012</td>
<td>2017 Incentives (Safety, Quality, and Public Outreach.)</td>
<td>$1,025,000</td>
<td>0.00%</td>
<td>-</td>
</tr>
</tbody>
</table>

**Total** $10,426,647 (3.02%) $35,581,547

**Notes:**

1. When the threshold of 75% is reached, staff may return to the Board to request additional authority.
2. Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.

### EMU Contract

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
<th>Remaining Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/22/2017</td>
<td>STA-056-CCO-001</td>
<td>Contract General Specification and Special Provision Clean-up</td>
<td>$0</td>
<td>0.00%</td>
<td>$27,544,973</td>
</tr>
<tr>
<td>10/27/2017</td>
<td>STA-056-CCO-002</td>
<td>Prototype Seats and Special Colors</td>
<td>$55,000</td>
<td>0.20%</td>
<td>$27,489,973</td>
</tr>
<tr>
<td>11/02/2017</td>
<td>STA-056-CCO-003</td>
<td>Car Level Water Tightness Test</td>
<td>$0</td>
<td>0.00%</td>
<td>$27,489,973</td>
</tr>
<tr>
<td>12/05/2017</td>
<td>STA-056-CCO-004</td>
<td>Onboard Wheelchair Lift 800 Pound Capacity Provisions</td>
<td>$848,000</td>
<td>3.08%</td>
<td>$26,641,973</td>
</tr>
<tr>
<td>11/03/2017</td>
<td>STA-056-CCO-005</td>
<td>Design Progression (multiple)</td>
<td>$0</td>
<td>0.00%</td>
<td>$26,641,973</td>
</tr>
<tr>
<td>12/12/2017</td>
<td>STA-056-CCO-006</td>
<td>Prototype Seats and Special Colors</td>
<td>($27,500)</td>
<td>(0.10%)</td>
<td>$26,669,473</td>
</tr>
<tr>
<td>01/17/2018</td>
<td>STA-056-CCO-007</td>
<td>Multi-Color Destination Signs</td>
<td>$130,760</td>
<td>0.47%</td>
<td>$26,538,713</td>
</tr>
<tr>
<td>02/09/2018</td>
<td>STA-056-CCO-008</td>
<td>Adjustment to Delivery and LDs due to delayed FNTP</td>
<td>$490,000</td>
<td>1.78%</td>
<td>$26,048,713</td>
</tr>
<tr>
<td>02/12/2018</td>
<td>STA-056-CCO-009</td>
<td>Ship Cab Mock-up to Caltrain</td>
<td>$53,400</td>
<td>0.19%</td>
<td>$25,995,313</td>
</tr>
<tr>
<td>04/17/2018</td>
<td>STA-056-CCO-010</td>
<td>Onboard Wheelchair Lift Locations</td>
<td>($1,885,050)</td>
<td>(6.84%)</td>
<td>$27,880,363</td>
</tr>
<tr>
<td>04/17/2018</td>
<td>STA-056-CCO-011</td>
<td>Multiple Change Group 3 and Scale Models</td>
<td>$0</td>
<td>0.00%</td>
<td>$27,880,363</td>
</tr>
</tbody>
</table>

**Total** ($335,390) (1.22%) $27,880,363

**Notes:**

1. When the threshold of 75% is reached, staff may return to the Board to request additional authority.
2. Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.
SCADA Contract

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
<th>Remaining Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>None to date</td>
<td></td>
<td></td>
<td>15% x $3,446,917 = $517,038</td>
<td>$0</td>
<td>$517,038</td>
</tr>
</tbody>
</table>

Notes:
1. When the threshold of 75% is reached, staff may return to the Board to request additional authority.
2. Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.
Appendix F – Risk Table
## Listing of PCEP Risks and Effects in Order of Severity

<table>
<thead>
<tr>
<th>ID</th>
<th>RISK DESCRIPTION</th>
<th>EFFECT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>279</td>
<td>BBII may be unable to develop grade crossing modifications that meet regulatory requirements prior to scheduled testing and commissioning of the system.</td>
<td>Crossing operations will not be acceptable to CPUC and FRA and therefore delay commissioning.</td>
</tr>
<tr>
<td>223</td>
<td>A complex and diverse collection of major program elements and current Caltrain capital works projects may not be successfully integrated with existing operations and infrastructure.</td>
<td>Proposed changes resulting from electrification may not be fully and properly integrated into existing system. Rework resulting in cost increases and schedule delays.</td>
</tr>
<tr>
<td>242</td>
<td>JPB may not be able to deliver work windows to contractor as dictated per contract.</td>
<td>Delays to construction schedule and associated delay claims.</td>
</tr>
<tr>
<td>281</td>
<td>Additional work in the form of signal/pole adjustments may be required to remedy sight distance impediments arising from modifications to original design.</td>
<td>Add repeater signals, design duct bank would result in increased design and construction costs.</td>
</tr>
<tr>
<td>287</td>
<td>Design changes may necessitate additional implementation of environmental mitigations not previously budgeted.</td>
<td>Increased cost for environmental measures and delays to construct and overall delay in construction schedule</td>
</tr>
<tr>
<td>67</td>
<td>Relocation of overhead utilities must precede installation of catenary wire and connections to TPSs. Relocation work will be performed by others and may not be completed to meet BBII’s construction schedule.</td>
<td>Delay in progress of catenary installation resulting in claims and schedule delay.</td>
</tr>
<tr>
<td>263</td>
<td>Collaboration across multiple disciplines to develop a customized rail activation program may fail to comprehensively address the full scope of issues required to operate and maintain an electrified railroad and decommission the current diesel fleet.</td>
<td>Delay in testing of EMUs. Delay in Revenue Service Date. Additional costs for Stadler and BBII due to overall schedule delays.</td>
</tr>
<tr>
<td>276</td>
<td>BBII may be unable to get permits required by jurisdictions for construction in a timely manner.</td>
<td>Additional cost and time resulting from delays to construction.</td>
</tr>
<tr>
<td>294</td>
<td>UP does not accept catenary pole offsets from centerline of track necessitating further negotiation or relocation of poles</td>
<td>Delay to construction and additional costs for redesign and ROW acquisition.</td>
</tr>
<tr>
<td>297</td>
<td>Cost and schedule of Stadler contract could increase as a result of this change in PTC system and wayside cannot be conducted without PTC in place.</td>
<td>1) Full integrated testing between EMU and wayside cannot be conducted without PTC in place.</td>
</tr>
<tr>
<td></td>
<td>Delay of PTC may delay acceptance of EMUs.</td>
<td>2) Delay in EMU final design for PTC and potential PTC interfaces. Need to finalize braking system sequence priority.</td>
</tr>
<tr>
<td>ID</td>
<td>RISK DESCRIPTION</td>
<td>EFFECT(S)</td>
</tr>
<tr>
<td>----</td>
<td>-----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>298</td>
<td>Cost and schedule of BBII contract could increase as a result of this change in PTC system</td>
<td>Balfour contract: changes in datafiles could affect what Balfour provides; could delay timing for testing; could change books that FRA had to review. Delay in testing and increased costs</td>
</tr>
<tr>
<td>209</td>
<td>TASI may be unable to deliver sufficient resources to support construction and testing for the electrification contract.</td>
<td>• Testing delayed. Additional construction costs. • Change order for extended vehicle acceptance.</td>
</tr>
</tbody>
</table>
| 241| Balfour Beatty needs to build TP2 and Interconnection in time for PG&E to supply power in time to support testing  
• Date is December 2018 to support contractor’s schedule  
• Interim power was mitigation to providing permanent power | Delay in testing and increased costs |
| 241| Risk of PG&E delay in interim power availability. |
| 247| Timely resolution of 3rd party design review comments to achieve timely approvals | Delay to completion of design and associated additional labor costs. |
| 257| Modifications to the CTC system hardware and software and Back Office Server database and systems to support DB must be completed in time for cutover and testing. | Failure to follow the DB Management process will result in major interruption to train service and overall capital projects delay. |
| 267| Additional property acquisition is necessitated by design changes. | New project costs and delays to schedule. |
| 268| Potential that vehicles will not receive timely notification of compliance from FRA. Most significant issues include:  
• Placement of windows as emergency exits  
• Compliance with acceptable alternate crash management standards | Delays to completion of construction and additional cost to changes in design. |
| 240| Property not acquired in time for contractor to do work. Property Acquisition not complete per contractor availability date  
<>Fee  
<>Easement  
<>Contract stipulates that if parcels are not available by contract date, there is only a delay if parcels are not available by the time contractor completes the Segment | • Potential delays in construction schedule |
<table>
<thead>
<tr>
<th>ID</th>
<th>RISK DESCRIPTION</th>
<th>EFFECT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>295</td>
<td>UP does not accept catenary pole offsets from centerline of track necessitating further negotiation or relocation of poles</td>
<td>Delay to construction and additional costs for redesign and ROW acquisition.</td>
</tr>
<tr>
<td>64</td>
<td>Potential need for additional right-of-way beyond that initially envisioned and/or relocation of underground utilities by others, which could result in delays to the schedule and associated costs.</td>
<td>Delay in installation of catenary poles resulting in claims and schedule delay CBOSS FOC conflicts additional costs and delays include: 1. Potholing 2. Design 3. OCS materials 4. Encasement 5. ROW JPB Signal Cable conflicts additional costs and delays include: 1. Trenching 2. Splicing 3. Cable</td>
</tr>
<tr>
<td>115</td>
<td>Other capital improvement program projects compete with PCEP for track access allocation and requires design coordination (design, coordination, integration).</td>
<td>Schedule delay as resources are allocated elsewhere, won’t get track time, sequencing requirements may delay PCEP construction, track access requirements must be coordinated.</td>
</tr>
<tr>
<td>136</td>
<td>UP may not complete review of BBI design in accordance with agreed deadlines (90 days in Segment 4, 60 days in other segments).</td>
<td>Delays to completion of design and claims for delay.</td>
</tr>
<tr>
<td>174</td>
<td>Installation of electrification infrastructure may require the relocation of signals, which would affect the block design.</td>
<td>Cost and schedule impacts resulting from the design, construction, and testing of modified signal system and review of revised block design.</td>
</tr>
<tr>
<td>260</td>
<td>EMU Contractor’s facility is not completed before needed for vehicle assembly.</td>
<td>Delay in commencement of assembly of EMUs delaying final delivery and system-wide testing.</td>
</tr>
<tr>
<td>261</td>
<td>EMU electromechanical emissions and track circuit susceptibility are incompatible.</td>
<td>Changes on the EMU and/or signal system require additional design and installation time and expense.</td>
</tr>
<tr>
<td>262</td>
<td>Configuration changes from other capital projects could necessitate changes to electrification design.</td>
<td>Potential increase or decrease in final construction cost for electrification; additional cost for rework of completed construction; delays to overall project schedule due to inefficiencies.</td>
</tr>
<tr>
<td>277</td>
<td>Inadequate D-B labor to support multiple work segments</td>
<td>Additional cost and time.</td>
</tr>
<tr>
<td>ID</td>
<td>RISK DESCRIPTION</td>
<td>EFFECT(S)</td>
</tr>
<tr>
<td>----</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>280</td>
<td>Field equipment installed by D/B contractor may not communicate with the Central Control Facility (CCF), the Back-Up Central Control Facility (BCCF) through SCADA and function as designed.</td>
<td>Could require the acquisition and installation of additional equipment at BCCF and CCF. Could therefore require additional cost and time.</td>
</tr>
<tr>
<td>285</td>
<td>Potential for inflation, (except with respect to Maintenance Option) to increase contractor costs.</td>
<td>Higher cost</td>
</tr>
<tr>
<td>286</td>
<td>Potential for wage escalation, (except for Maintenance Option) to increase contractor costs.</td>
<td>Higher cost</td>
</tr>
<tr>
<td>296</td>
<td>BBII needs to complete interconnection and traction power substations be sufficiently complete to accept interim power</td>
<td>Delay in testing and increased costs</td>
</tr>
</tbody>
</table>
| 56 | Lack of O&M support for testing and/or vehicle operations. Includes operational readiness and personnel hired and scheduled to be trained.                                                                          | • Testing delayed.  
• Change order for extended vehicle acceptance.                                                                                                                                                     |
| 88 | Construction safety program fails to sufficiently maintain safe performance.                                                                                                                                      | Work stoppages due to safety incidents resulting in schedule delay and additional labor costs.                                                                                                               |
| 161| Unanticipated costs to provide alternate service (bus bridges, etc.) during rail service disruptions.                                                                                                            | Cost increase.                                                                                                                                                                                            |
| 179| Risk that municipal reviews take additional time due to absence of municipal agreement.                                                                                                                              | Possible delay to:  
(1) to design review;  
(2) permit issuance;  
(3) construction within local jurisdiction right-of-way                                                                                                                                 |
| 183| Installation and design of new duct bank takes longer because of UP coordination.                                                                                                                                     | **Schedule** - Delay. May need to use condemnation authority to acquire easement.  
**Cost** - Additional cost for PG&E to make connections increasing project costs                                                                 |
<p>| 250| Potential for municipalities to request betterments as part of the electrification project.                                                                                                                          | Delay to project schedule in negotiating betterments as part of the construction within municipalities and associated increased cost to the project as no betterments were included in the project budget. |</p>
<table>
<thead>
<tr>
<th>ID</th>
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<th>EFFECT(S)</th>
</tr>
</thead>
</table>
| 259 | Work on 25th Avenue Grade Separation Project could delay Balfour construction schedule. | • Increased cost for BBI as catenary construction in this section was anticipated to be constructed under the 25th Avenue Grade Separation Project.  
• Potential delays in construction schedule  
• Risk is delay to BBI                                                                 |
| 270 | OCS poles or structures as designed by Contractor fall outside of JPB row         | Additional ROW Take, additional cost and time                                                                                                                                                            |
| 82  | Unexpected restrictions could affect construction progress:                     | • Reduced production rates.  
• Delay                                                                                                                                                                                                 |
| 119 | Coordination of electrification design with Operations                           | • Qualified individuals may not be available.  
• Training may take longer than anticipated.                                                                                                                                                    |
<p>| 253 | Risk that existing conditions of Caltrans-owned bridges will not support bridge barriers. The existing bridge conditions and structural systems are unknown and may not support mounting new work | Delays to issuance of permit for construction while negotiating and executing an operation and maintenance agreement for equipment installed on bridges; existing bridge deficiencies could result in additional costs to PCEP. |
| 78  | Need for unanticipated, additional ROW for new signal enclosures.                | Delay while procuring ROW and additional ROW costs.                                                                                                                                                     |
| 154 | Potential for encountering unidentified or unknown private crossings along the corridor. | Additional cost and time to acquire ROW by condemnation                                                                                                                                                   |
| 171 | Electrification facilities could be damaged during testing.                     | Delay in commencing electrified operations.                                                                                                                                                             |</p>
<table>
<thead>
<tr>
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</thead>
</table>
| 195 | Introduction of electrified train service will require training of first responders in working in and around the rail corridor. The new vehicles will be considerably quieter than the existing fleet and the presence of high voltage power lines will require new procedures for emergency response. A new training program will need to be developed and disseminated for:  
• Fire, police, and first responders  
• Local communities  
• Schools                                                                                                                                                                                                                     | Safety hazards resulting in incidents that delay construction and increase labor cost. Delays in RSD until training is completed as requirement of safety certification process. |
| 251 | Subcontractor and supplier performance to meet aggressive schedule  
<>Potential issue meeting Buy America requirements                                                                                                                                                                         | Delay to production schedule resulting in increased soft costs and overall project schedule delay.                                                                                                                                   |
<p>| 265 | PG&amp;E must deliver interim power in time for Balfour testing                                                                                                                                                                                                                           | Delay in testing and increased costs                                                                                                                                                                                                 |
| 271 | Need for additional construction easements beyond that which has been provided for Contractor proposed access and staging                                                                                                                                                                 | Additional cost and time                                                                                                                                                                                                            |
| 272 | Final design based upon actual Geotech conditions                                                                                                                                                                                                                                      | Could require changes                                                                                                                                                                                                             |
| 288 | Independent checker finds errors in signal design and technical submittals                                                                                                                                                                                                              | Additional cost and time                                                                                                                                                                                                             |
| 289 | Coordination and delivery of permanent power for power drops for everything except traction power substations along alignment                                                                                                                                                      | Can't test resulting in delays to schedule and associated additional project costs.                                                                                                                                                 |
| 291 | Order/manufacture of long lead items prior to 100% IFC design document that proves to be incorrect                                                                                                                                                                                   | Design change and/or delays                                                                                                                                                                                                          |
| 292 | Potential that UPS will not fit in the spaces allotted to communications work within the buildings.                                                                                                                                                                                  | Requisite backup capacity units under design criteria could result in the need for larger unit than originally planned resulting in design and fabrication changes and associated schedule delays and costs. |
| 19  | Potential for vehicle delivery to be hampered by international conflict; market disruption; labor strikes at production facility.                                                                                                                                                  | Delay in production of vehicle with associated cost implications.                                                                                                                                                                   |
| 42  | Full complement of EMUs not available upon initiation of electrified revenue service                                                                                                                                                                                                  | Late delivery impacts revenue service date.                                                                                                                                                                                        |
| 101 | PG&amp;E may not be able to deliver permanent power for the project within the existing budget and in accordance with the project schedule                                                                                                                                              | Additional project costs; potential delay to revenue service date                                                                                                                                                                  |</p>
<table>
<thead>
<tr>
<th>ID</th>
<th>RISK DESCRIPTION</th>
<th>EFFECT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>Number of OCS pole installation is significant. Any breakdown in sequencing of operations or coordination of multiple crews will have a substantial effect on the project.</td>
<td>Delay.</td>
</tr>
<tr>
<td>245</td>
<td>Failure of BBI to submit quality design and technical submittals in accordance with contract requirements • $3-$5M/month burn rate for Owner’s team during peak</td>
<td>Delays to project schedule and additional costs for preparation and review of submittals.</td>
</tr>
<tr>
<td>252</td>
<td>Failure of BBI to order/manufacture long lead items prior to 100% IFC design document approval by JPB</td>
<td>Delays to project schedule and additional cost for contractor and JPB staff time.</td>
</tr>
<tr>
<td>266</td>
<td>Relocation of Verizon must precede installation of foundations and connections to TPSs. Relocation work will be performed by others and may not be completed to meet BBII’s construction schedule.</td>
<td>Delay in progress of catenary installation resulting in claims and schedule delay</td>
</tr>
<tr>
<td>10</td>
<td>Delays in parts supply chain result in late completion of vehicles.</td>
<td>• Delay in obtaining parts / components. • Cost increases. (See Owner for allocation of costs) • Schedule increase - 3 months (See Owner for allocation of damages associated with this Risk)</td>
</tr>
<tr>
<td>12</td>
<td>Potential for electromagnetic interference (EMI) to private facilities with sensitive electronic equipment caused by vehicles.</td>
<td>• Increased cost due to mitigation • Potential delay due to public protests or environmental challenge.</td>
</tr>
<tr>
<td>50</td>
<td>Leadership and / or key personnel changes with car builder results in delays to completion of design and manufacture of vehicles.</td>
<td>• Cost Increase • Schedule Increase – not supported by a TIA</td>
</tr>
<tr>
<td>51</td>
<td>Damage during delivery of first six EMUs.</td>
<td>Schedule delay</td>
</tr>
<tr>
<td>54</td>
<td>Infrastructure not ready for vehicles (OCS, TPS, Commissioning site / facility).</td>
<td>Increases cost if done off property</td>
</tr>
<tr>
<td>69</td>
<td>Potential need for additional construction easements. Especially for access and laydown areas. Contractor could claim project is not constructible and needs more easements after award.</td>
<td>Increased cost</td>
</tr>
<tr>
<td>87</td>
<td>Unanticipated HazMat or contaminated hot spots encountered during foundation excavations for poles, TPSS, work at the yards.</td>
<td>Increased cost for clean-up and handling of materials and delay to schedule due to HazMat procedures.</td>
</tr>
<tr>
<td>ID</td>
<td>RISK DESCRIPTION</td>
<td>EFFECT(S)</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>93</td>
<td>Unanticipated subsurface conditions affecting pole or TPSS installation.</td>
<td>• Delay taking actions to remedy conditions or relocate foundations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increased cost for design and construction of remediation</td>
</tr>
<tr>
<td>106</td>
<td>Potential that DB contractor will have insufficient field resources (personnel or</td>
<td>Delay.</td>
</tr>
<tr>
<td></td>
<td>equipment) to maintain aggressive schedule.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multiple segments will need to be under design simultaneously.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Labor pool issue. 32 qualified linemen will be needed. Potential there is not enough</td>
<td></td>
</tr>
<tr>
<td></td>
<td>available. Big storm damage anywhere in US will draw from the pool to make line</td>
<td></td>
</tr>
<tr>
<td></td>
<td>repairs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Possible shortages with other specialty crafts as well.</td>
<td></td>
</tr>
<tr>
<td>146</td>
<td>Wayside signal / pole adjustments to avoid sighting distance problems.</td>
<td>Change order.</td>
</tr>
<tr>
<td>148</td>
<td>Potential impact to advancing construction within the vicinity of any cultural</td>
<td>Minor disruption of the construction work</td>
</tr>
<tr>
<td></td>
<td>finds that are excavated.</td>
<td></td>
</tr>
<tr>
<td>151</td>
<td>Public could raise negative concerns regarding wheel/rail noise.</td>
<td>Increased cost to mitigate:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;&gt; grind rails</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;&gt; reprofile wheels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;&gt; sound walls</td>
</tr>
<tr>
<td>182</td>
<td>Compliance with Buy America requirements for 3rd party utility relocations.</td>
<td>• Increased cost</td>
</tr>
<tr>
<td></td>
<td>&lt;&gt; Utility relocations covered under existing Caltrain agreements that require</td>
<td>• Delay</td>
</tr>
<tr>
<td></td>
<td>utilities to move that will not have effect on project cost - will not be Buy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>America</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;&gt; Installation of new equipment inside PG&amp;E substations that will provide all</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG&amp;E customers, about 1/6 of that provides power to our system - is upgrade that</td>
<td></td>
</tr>
<tr>
<td></td>
<td>benefits all customers subject to Buy America requirements, is it 1/6th, or 100%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;&gt; Risk is substation not relocations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;&gt; Substation equipment is available domestically, has 6 month longer lead time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and increased cost of 20%</td>
<td></td>
</tr>
<tr>
<td>ID</td>
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</tr>
<tr>
<td>-----</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>189</td>
<td>EMUs will need I-ITCS equipment that is compatible with wayside equipment. Same supplier thereby reducing the risk.</td>
<td>Could drive up price because the car builder may not be a priority customer.</td>
</tr>
<tr>
<td>192</td>
<td>Environmental compliance during construction. Failure to meet the commitments contained within the PCEP EA, FEIR and permit conditions</td>
<td>• Delay</td>
</tr>
</tbody>
</table>
<pre><code>                                                                                                                                           | • Cost increase                                                          |
</code></pre>
<p>| 213 | Potential that cost of relocation exceeds previously budgeted cost for property acquisition.                                                      | Increase in project costs and potential delay to secure funding.           |
| 237 | JPB needs and agreement with each city in which catenary will be strung over an existing grade crossing (17 in all) under GO 88 (grade crossings). These agreements must be executed subsequent to installing overhead catenary. JPB is preparing a response to CPUC while working with the cities. Delays in reaching agreement could have impacts on schedule and budget. | Not completing the grade crossing diagnostics and getting agreement from the cities on the results can result in delays to necessary approvals for the project and revenue service. |
| 248 | 3rd party coordination &lt;Jurisdictions, Utilities, UP, Contractors &lt;D/B needs to provide timely information to facilitate 3rd party coordination &lt;Risk is for construction | Delays in approvals resulting in project schedule delays and associated costs. |
| 249 | Coordination and delivery of permanent power for power drops along alignment                                                                   | Delays in completion of construction and testing with associated increase in costs. |
| 254 | Potential that bridge clearance data are inaccurate and that clearances are not sufficient for installation of catenary.                       | Results in additional design and construction to create sufficient clearance. |
| 269 | Potholing unearths the fact that pole locations conflict with utilities. OCS pole or structure locations as designed by Contractor conflict with utilities where conflict could have been avoided by allowable final design adjustments. | Additional cost and time                                                  |
| 273 | Contractor generates new hazardous materials, necessitates proper removal and disposal of existing hazardous materials identified in the Contract for D-B remediation. | Delay to construction while removing and disposing of hazardous materials resulting in schedule delay, increased construction costs, and schedule delay costs. |
| 274 | JPB as-built dwgs and existing infrastructure to be used as basis of final design and construction is not correct                              | Additional cleanup of as-builds after PCEP construction                     |
| 275 | DB fails to verify as-built dwgs and existing infrastructure                                                                               | Additional cleanup of as-builds after PCEP construction                     |
| 278 | Failure of D/B contractor and subcontractors and suppliers to meet Buy America requirements                                                   | Delays while acceptable materials are procured and additional costs for delays and purchase of duplicative equipment. |</p>
<table>
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<tr>
<th>ID</th>
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</tr>
</thead>
<tbody>
<tr>
<td>282</td>
<td>Failure to maintain dynamic envelope and existing track clearances consistent with requirements.</td>
<td>Redesign entailing cost and schedule impacts.</td>
</tr>
<tr>
<td>283</td>
<td>Fluctuation in foreign currency v US dollar</td>
<td>Increase in costs</td>
</tr>
<tr>
<td>284</td>
<td>Compliance with project labor agreement could result in inefficiencies in staffing of construction.</td>
<td>Increase in labor costs and less efficient construction resulting in schedule delays.</td>
</tr>
<tr>
<td>290</td>
<td>Delays in agreement and acceptance of initial VVSC requirements database.</td>
<td>Delay to design acceptance</td>
</tr>
<tr>
<td>293</td>
<td>Readiness of 115kV interconnect for temporary power to support testing</td>
<td>Delay in testing</td>
</tr>
</tbody>
</table>
Appendix G – MMRP Status Log
## Mitigation Monitoring and Reporting

<table>
<thead>
<tr>
<th>Mitigation Measure</th>
<th>Mitigation Timing</th>
<th>Status</th>
<th>Status Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AES-2a: Minimize OCS construction activity on residential and park areas outside the Caltrain ROW.</td>
<td>X</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td>AES-2b: Aesthetic treatments for OCS poles, TPFs in sensitive visual locations, and Overbridge Protection Barriers.</td>
<td>X</td>
<td></td>
<td>Ongoing</td>
</tr>
<tr>
<td>AES-4a: Minimize spillover light during nighttime construction.</td>
<td>X</td>
<td></td>
<td>Ongoing</td>
</tr>
<tr>
<td>AES-4b: Minimize light spillover at TPFs.</td>
<td>X</td>
<td></td>
<td>Upcoming</td>
</tr>
<tr>
<td>AQ-2a: Implement BAAQMD basic and additional construction mitigation measures to reduce construction-related dust.</td>
<td>X</td>
<td>X</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
## Mitigation Monitoring and Reporting

<table>
<thead>
<tr>
<th>Mitigation Measure</th>
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<th>Status</th>
<th>Status Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AQ-2b</strong>: Implement BAAQMD basic and additional construction mitigation measures to control construction-related ROG and NOX emissions.</td>
<td>Pre-Construction</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Post-Construction</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AQ-2c</strong>: Utilize clean diesel-powered equipment during construction to control construction-related ROG and NOX emissions.</td>
<td>Pre-Construction</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>X</td>
<td>X</td>
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<td></td>
<td>Post-Construction</td>
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<td>Operation</td>
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</tr>
<tr>
<td><strong>BIO-1a</strong>: Implement general biological impact avoidance measures.</td>
<td>Pre-Construction</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>X</td>
<td>X</td>
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<td></td>
<td>Post-Construction</td>
<td>Ongoing</td>
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</tr>
<tr>
<td><strong>BIO-1b</strong>: Implement special-status plant species avoidance and revegetation measures.</td>
<td>Pre-Construction</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>X</td>
<td>X</td>
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<td></td>
<td>Post-Construction</td>
<td>Ongoing</td>
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<tbody>
<tr>
<td>BIO-1c: Implement California red-legged frog and San</td>
<td>X</td>
<td>Ongoing</td>
<td>Pre-construction surveys are occurring no more than 7 days prior to the initiation of construction activities nearby/adjacent to potential habitat for CRLF and SFGS. The Wildlife Exclusion Fencing Plan for Segments 2 and 4 was submitted and approved by the wildlife agencies, and installation and monitoring of wildlife exclusion fencing is ongoing. No CRLF / SFGS or sign of each species has been observed to date on the Project. A separate Wildlife Exclusion Fencing Plan will be submitted for Segments 1 and 3, prior to initiation of construction activities in those segments.</td>
</tr>
<tr>
<td>Francisco garter snake avoidance measures.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO-1d: Implement western pond turtle avoidance</td>
<td>X</td>
<td>Ongoing</td>
<td>Pre-construction surveys are occurring no more than 7 days prior to the initiation of construction activities nearby/adjacent to potential habitat for WPT. No WPT or WPT sign have been observed to date on the Project.</td>
</tr>
<tr>
<td>measures.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO-1e: Implement Townsend’s big-eared bat, pallid</td>
<td>X</td>
<td>Ongoing</td>
<td>Pre-construction surveys are occurring no more than 7 days prior to the initiation of construction activities with the potential to disturb bats or their habitat. No special-status bats or sign have been observed to date on the Project.</td>
</tr>
<tr>
<td>bat, hoary bat, and fringed myotis avoidance measures.</td>
<td>X</td>
<td></td>
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<tbody>
<tr>
<td><strong>BIO-1f: Implement western burrowing owl avoidance measures.</strong></td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>BIO-1g: Implement northern harrier, white-tailed kite, American peregrine falcon, saltmarsh common yellowthroat, purple martin, and other nesting bird avoidance measures.</strong></td>
<td>X</td>
<td>Ongoing</td>
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<tbody>
<tr>
<td><strong>BIO-1h</strong>: Conduct biological resource survey of future contractor-determined staging areas.</td>
<td>X X</td>
<td>Ongoing</td>
<td>The agency-approved Qualified Biologist has conducted surveys of the staging areas currently being used for construction activities. No special-status species or other potentially sensitive biological resources were observed. The agency-approved Qualified Biologist will continue to survey ahead of the initiation of activities at planned staging areas as the Project moves into new construction areas.</td>
</tr>
<tr>
<td><strong>BIO-1i</strong>: Minimize impacts on Monarch butterfly overwintering sites.</td>
<td>X X</td>
<td>Ongoing</td>
<td>The agency-approved Qualified Biologist has periodically monitored the project limits to evaluate the presence of Monarch butterfly overwintering sites. No Monarch butterfly overwintering sites have been observed on the Project to date.</td>
</tr>
<tr>
<td><strong>BIO-1j</strong>: Avoid nesting birds and bats during vegetation maintenance.</td>
<td></td>
<td>Upcoming</td>
<td>To be completed during Project operation.</td>
</tr>
<tr>
<td><strong>BIO-2</strong>: Implement serpentine bunchgrass avoidance and revegetation measures.</td>
<td>X X X</td>
<td>Complete</td>
<td>Not applicable. Subsequent habitat assessment and avoidance of Communication Hill eliminated any potential to affect serpentine bunchgrass. This measure is no longer needed.</td>
</tr>
<tr>
<td><strong>BIO-3</strong>: Avoid or compensate for impacts on wetlands and waters.</td>
<td>X X X</td>
<td>Complete</td>
<td>The JPB has compensated for unavoidable wetland impacts by purchasing adequate credits from a wetlands mitigation bank approved by USACE and SFRWQCB.</td>
</tr>
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<tbody>
<tr>
<td><strong>BIO-5: Implement Tree Avoidance, Minimization, and Replacement Plan.</strong></td>
<td>X</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>BIO-6: Pay <em>Santa Clara Valley Habitat Plan</em> land cover fee (if necessary).</strong></td>
<td>X</td>
<td></td>
<td>Complete</td>
</tr>
<tr>
<td><strong>CUL-1a: Evaluate and minimize impacts on structural integrity of historic tunnels.</strong></td>
<td>X</td>
<td></td>
<td>Upcoming</td>
</tr>
<tr>
<td><strong>CUL-1b: Minimize impacts on historic decorative tunnel material.</strong></td>
<td>X</td>
<td></td>
<td>Upcoming</td>
</tr>
<tr>
<td><strong>CUL-1c: Install project facilities in a way that minimizes impacts on historic tunnel interiors.</strong></td>
<td>X</td>
<td></td>
<td>Upcoming</td>
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<tbody>
<tr>
<td><strong>CUL-1d: Implement design commitments at historic railroad stations</strong></td>
<td>Pre-Construction</td>
<td>X</td>
<td>Complete</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td></td>
<td>The Qualified Architectural Historian completed and submitted the HABS Level III documents to the JPB for all seven of the historic stations. Pole placement has been designed to minimize the visual impact to historic stations and all design changes are reviewed by the Environmental Compliance Lead to ensure the mitigation measure is being implemented as the design of the project progresses.</td>
</tr>
<tr>
<td></td>
<td>Post-Construction</td>
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</tr>
<tr>
<td></td>
<td>Operation</td>
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</tr>
<tr>
<td><strong>CUL-1e: Implement specific tree mitigation considerations at two potentially historic properties and landscape recordation, as necessary.</strong></td>
<td>Pre-Construction</td>
<td>X</td>
<td>Complete</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>X</td>
<td>It was determined that the project is not acquiring any ROW at either of the subject properties so all tree effects would be within the JPB ROW. Therefore, the APE does not include these two historic properties. This measure is no longer needed.</td>
</tr>
<tr>
<td></td>
<td>Post-Construction</td>
<td></td>
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<tr>
<td></td>
<td>Operation</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>CUL-1f: Implement historic bridge and underpass design requirements.</strong></td>
<td>Pre-Construction</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td></td>
<td>This measure is being implemented as described during the design process and will be incorporated into the final design. The four bridges that are included in the MMRP are rail bridges crossing over another feature. Design of the OCS system is taking into account that there are requirements that restrict the design. Thus far, the designs for Construction Segments 2 &amp; 4 are in process and designs are not yet complete. The D-B will forward to the Architectural Historian once complete.</td>
</tr>
<tr>
<td></td>
<td>Post-Construction</td>
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<td>Operation</td>
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</tr>
<tr>
<td><strong>CUL-2a: Conduct an archaeological resource survey and/or monitoring of the removal of pavement or other obstructions to determine if historical resources under CEQA or</strong></td>
<td>Pre-Construction</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td></td>
<td>Periodic inspections of ground surface areas along the alignment, in conjunction with cultural monitoring as-needed of project activities in culturally sensitive areas are ongoing. The Archaeological Final Report will be provided at the</td>
</tr>
<tr>
<td></td>
<td>Post-Construction</td>
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<td>unique archaeological resources under PRC 21083.2 are present.</td>
<td></td>
<td></td>
<td>conclusion of construction activities.</td>
</tr>
<tr>
<td>CUL-2b: Conduct exploratory trenching or coring of areas where subsurface project disturbance is planned in those areas with “high” or “very high” potential for buried site.</td>
<td>X</td>
<td>Ongoing</td>
<td>Exploratory trenching and subsurface testing of all potentially culturally sensitive areas is occurring prior to the initiation of construction activities in those areas. The results will be included in the Archaeological Final Report. No cultural resources requiring the development of a treatment plan were observed. A Native American monitor has been present for all exploratory trenching and subsurface testing work.</td>
</tr>
<tr>
<td>CUL-2c: Conduct limited subsurface testing before performing ground-disturbing work within 50 meters of a known archaeological site.</td>
<td>X</td>
<td>Ongoing</td>
<td>Exploratory trenching and subsurface testing of all potentially culturally sensitive areas is occurring prior to the initiation of construction activities in those areas. The results will be included in the Archaeological Final Report. No cultural resources requiring the development of a treatment plan were observed. A Native American monitor has been present for all exploratory trenching and subsurface testing work.</td>
</tr>
<tr>
<td>CUL-2d: Conduct exploratory trenching or coring of areas within the three zones of special sensitivity where subsurface project disturbance is planned.</td>
<td>X</td>
<td>Ongoing</td>
<td>Exploratory trenching and subsurface testing of all potentially culturally sensitive areas is occurring prior to the initiation of construction activities in those areas. The results will be included in the Archaeological Final Report. No cultural resources requiring the development of a treatment plan were observed. A Native American monitor has been present for all exploratory trenching and subsurface testing work.</td>
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<tr>
<td>CUL-2e: Stop work if cultural resources are encountered during ground-disturbing activities.</td>
<td>Pre-Construction: X Construction: X Post-Construction: Ongoing</td>
<td>Ongoing</td>
<td>present for all exploratory trenching and subsurface testing work.</td>
</tr>
<tr>
<td>CUL-2f: Conduct archaeological monitoring of ground-disturbing activities in areas as determined by JPB and SHPO.</td>
<td>Pre-Construction: X Construction: Ongoing</td>
<td>Ongoing</td>
<td>No prehistoric or historic-period cultural materials have been observed during cultural monitoring.</td>
</tr>
<tr>
<td>CUL-3: Comply with state and county procedures for the treatment of human remains discoveries.</td>
<td>Pre-Construction: X Construction: Ongoing</td>
<td>Ongoing</td>
<td>Cultural monitoring as-needed of project activities in culturally sensitive areas is ongoing. The Archaeological Final Report will be provided at the conclusion of construction activities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No human remains have been observed to date on the Project.</td>
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<tbody>
<tr>
<td><strong>EMF-2: Minimize EMI effects during final design, Monitor EMI effects during testing, commission and operations, and RemEDIATE Substantial Disruption of Sensitive Electrical Equipment.</strong></td>
<td>X X X</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure are being implemented through the final design as described. Designs are submitted and reviewed/commented on by JPB. Monitoring EMI effects will occur post construction.</td>
</tr>
<tr>
<td><strong>GEO-1: Perform a site-specific geotechnical study for traction power facilities.</strong></td>
<td>X</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure are being implemented through the final design as described. Geotechnical studies and results are submitted to JPB as completed.</td>
</tr>
<tr>
<td><strong>GEO-4a: Identification of expansive soils.</strong></td>
<td>X</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure are being implemented through the final design as described. Geotechnical studies and results are submitted to JPB as completed.</td>
</tr>
<tr>
<td><strong>GEO-4b: Mitigation of expansive soils.</strong></td>
<td>X</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure are being implemented through the final design as described. Geotechnical studies and results are submitted to JPB as completed.</td>
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<tbody>
<tr>
<td><strong>HAZ-2a: Conduct a Phase II Environmental Site Assessment prior to construction.</strong></td>
<td>Pre-Construction: X</td>
<td></td>
<td>Complete A Phase II Environmental Assessment was completed prior to construction by the JPB consultant, and the results were provided to BBI, and the required mitigation is being implemented prior to the initiation of construction activities.</td>
</tr>
<tr>
<td><strong>HAZ-2b: Implement engineering controls and best management practices during construction.</strong></td>
<td>Pre-Construction: X</td>
<td>Construction: X</td>
<td>Ongoing Field activities are being monitored daily for significant color changes or odors which may indicate contamination.</td>
</tr>
<tr>
<td><strong>HYD-1: Implement construction dewatering treatment, if necessary.</strong></td>
<td>Pre-Construction: X</td>
<td>Construction: X</td>
<td>Ongoing Facilities &amp; BMPs are in place to deal with this requirement should it arise in the OCS foundations.</td>
</tr>
<tr>
<td><strong>HYD-4: Minimize floodplain impacts by minimizing new impervious areas for TPFs or relocating these facilities.</strong></td>
<td>Pre-Construction: X</td>
<td></td>
<td>Ongoing The design requirements indicated in the measure are being implemented through the final design as described. The TPFs in Construction Segments 2 &amp; 4 are currently in design. The design minimizes hardscape only to required structure foundations; yard areas are to receive a pervious material.</td>
</tr>
<tr>
<td><strong>HYD-5: Provide for electrical safety at TPFs subject to periodic or potential flooding.</strong></td>
<td>Pre-Construction: X</td>
<td>Post-Construction: X</td>
<td>Ongoing The design requirements indicated in the measure are being implemented through the final design as described. The TPFs in Construction Segments 2 &amp; 4 are currently in design. The design plan currently raises the TPFs above the floodplain.</td>
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<tr>
<td><strong>HYD-7: Implement sea level rise vulnerability assessment and adaptation plan.</strong></td>
<td></td>
<td></td>
<td>The JPB has initiated this measure and preparation of the sea level rise vulnerability assessment and adaptation plan is underway.</td>
</tr>
<tr>
<td><strong>NOI-1a: Implement Construction Noise Control Plan.</strong></td>
<td>X</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>NOI-1b: Conduct site-specific acoustical analysis of ancillary facilities based on the final mechanical equipment and site design and implement noise control treatments where required.</strong></td>
<td></td>
<td></td>
<td>The design requirements indicated in the measure are being implemented through the final design as described. Design is still in process and a noise study is currently being performed.</td>
</tr>
<tr>
<td><strong>NOI-2a: Implement Construction Vibration Control Plan.</strong></td>
<td>X</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>PSU-8a: Provide continuous coordination with all utility providers.</strong></td>
<td></td>
<td></td>
<td>The design requirements indicated in the measure will be implemented through the final design as described. Coordination with utility providers is ongoing and there have not been any service interruptions thus far.</td>
</tr>
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<tr>
<td>PSU-8b: Adjust OCS pole foundation locations.</td>
<td>Pre-Construction: X, Construction: , Post-Construction: , Operation:</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure are being implemented through the final design as described.</td>
</tr>
<tr>
<td>PSU-8c: Schedule and notify users about potential service interruptions.</td>
<td>Pre-Construction: X, Construction: X, Post-Construction: , Operation:</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure are being implemented through the final design as described. There have not been any service interruptions thus far.</td>
</tr>
<tr>
<td>PSU-9: Require application of relevant construction mitigation measures to utility relocation and transmission line construction by others.</td>
<td>Pre-Construction: X, Construction: X, Post-Construction: , Operation:</td>
<td>Ongoing</td>
<td>JPB has initiated coordination with PG&amp;E regarding transmission line construction. PG&amp;E is currently raising overcrossing lines in Segment 2.</td>
</tr>
<tr>
<td>TRA-1a: Implement Construction Road Traffic Control Plan.</td>
<td>Pre-Construction: X, Construction: X, Post-Construction: , Operation:</td>
<td>Upcoming</td>
<td>The D-B has begun traffic control design and permit applications with cities in Segments 2 and 4. Designs have been completed and approved for all cross-over bridges in Segments 2 and 4.</td>
</tr>
<tr>
<td>TRA-1c: Implement signal optimization and roadway geometry improvements at impacted intersections for the 2020 Project Condition.</td>
<td>Pre-Construction: X, Construction: X, Post-Construction: , Operation:</td>
<td>Upcoming</td>
<td>This measure has not started</td>
</tr>
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<tr>
<td><strong>TRA-2a: Implement construction railway disruption control plan.</strong></td>
<td>X</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Minimization of railway disruption is being coordinated by the Site Specific Work Plan. A Construction Railway Disruption Control Plan was prepared to document the measures that are being implemented.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRA-3b: In cooperation with the City and County of San Francisco, implement surface pedestrian facility improvements to address the Proposed Project’s additional pedestrian movements at and immediately adjacent to the San Francisco 4th and King Station.</strong></td>
<td>X</td>
<td>X X X</td>
<td>Upcoming</td>
</tr>
<tr>
<td>This measure has not started.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TRA-4b: Continue to improve bicycle facilities at Caltrain stations and partner with bike share programs where available following guidance in Caltrain’s Bicycle Access and Parking Plan.</strong></td>
<td></td>
<td>X</td>
<td>Upcoming</td>
</tr>
<tr>
<td>This measure will be implemented during project operation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NOI-CUMUL-1: Implement a phased program to reduce cumulative train noise along the Caltrain corridor as necessary to address future cumulative noise increases over FTA thresholds</strong></td>
<td></td>
<td>X</td>
<td>Upcoming</td>
</tr>
<tr>
<td>This measure will be implemented during project operation.</td>
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<tr>
<td><strong>NOI-CUMUL-2: Conduct project-level vibration analysis for Blended System operations and implement vibration reduction measures as necessary and appropriate for the Caltrain corridor</strong></td>
<td>X</td>
<td>In Progress</td>
<td>CHSRA is conducting this analysis as part of the EIR/EIS for the San Francisco to San Jose section.</td>
</tr>
<tr>
<td><strong>TRA-CUMUL-1: Implement a phased program to provide traffic improvements to reduce traffic delays near at-grade crossings and Caltrain stations</strong></td>
<td>X</td>
<td>Upcoming</td>
<td>This measure will be implemented during project operation.</td>
</tr>
<tr>
<td><strong>TRA-CUMUL-2: Implement technical solution to allow electric trolley bus transit across 16th Street without OCS conflicts in cooperation with SFMTA.</strong></td>
<td>X</td>
<td>Complete</td>
<td>Not applicable. SFMTA has elected to not electrify the 16th Street crossing. This measure no longer applies.</td>
</tr>
<tr>
<td>Mitigation Measure <strong>TRA-CUMUL-3: As warranted, Caltrain and freight operators will partner to provide Plate H clearance as feasible between San Jose and Bayshore.</strong></td>
<td>X</td>
<td>Upcoming</td>
<td>This measure will be implemented during project operation.</td>
</tr>
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June 2018
Monthly Progress Report

June 30, 2018
Funding Partners

Federal Transit Administration (FTA) Core Capacity

FTA Section 5307 (Environmental / Pre Development only)

FTA Section 5307 (Electric Multiple Unit (EMU) only)

Prop 1B (Public Transportation Modernization & Improvement Account)

Caltrain Low Carbon Transit Operations Cap and Trade

Proposition 1A

California High Speed Rail Authority (CHSRA) Cap and Trade

Carl Moyer Fund

Bridge Tolls (Funds Regional Measure (RM) 1/RM2)

San Francisco County Transportation Authority (SFCTA)/San Francisco Municipal Transportation Agency (SFMTA)

San Mateo County Transportation Authority (SMCTA) Contribution

SMCTA Measure A

Santa Clara Valley Transportation Authority (VTA) Measure A

VTA Contribution

City and County of San Francisco (CCSF) Contribution
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1.0 BACKGROUND

Over the last decade, Caltrain has experienced a substantial increase in ridership and anticipates further increases in ridership demand as the San Francisco Bay Area’s population grows. The Caltrain Modernization (CalMod) Program, scheduled to be implemented by 2021, will electrify and upgrade the performance, operating efficiency, capacity, safety, and reliability of Caltrain’s commuter rail service.

The PCEP is a key component of the CalMod Program and consists of converting Caltrain from diesel-hauled to Electric Multiple Unit (EMU) trains for service between the San Francisco Station (at the intersection of Fourth and King Streets in San Francisco) and the Tamien Station in San Jose. Caltrain will continue Gilroy service and support existing tenants.

An electrified Caltrain will better address Peninsula commuters’ vision of environmentally friendly, fast and reliable service. Electrification will modernize Caltrain and make it possible to increase service while offering several advantages in comparison with existing diesel power use, including:

- **Improved Train Performance, Increased Ridership Capacity and Increased Service:** Electrified trains can accelerate and decelerate more quickly than diesel-powered trains, allowing Caltrain to run more efficiently. In addition, because of their performance advantages, electrified trains will enable more frequent and/or faster train service to more riders.

- **Increased Revenue and Reduced Fuel Cost:** An electrified Caltrain will increase ridership and fare revenues while decreasing fuel costs.

- **Reduced Engine Noise Emanating from Trains:** Noise from electrified train engines is measurably less than noise from diesel train engines. Train horns will continue to be required at grade crossings, adhering to current safety regulations.

- **Improved Regional Air Quality and Reduced Greenhouse Gas Emissions:** Electrified trains will produce substantially less corridor air pollution compared with diesel trains even when the indirect emissions from electrical power generation are included. Increased ridership will reduce automobile usage, resulting in additional air quality benefits. In addition, the reduction of greenhouse gas emissions will improve our regional air quality, and will also help meet the state’s emission reduction goals.
2.0 EXECUTIVE SUMMARY

The Monthly Progress Report is intended to provide an overview of the PCEP and provide funding partners, stakeholders, and the public an overall update on the progress of the project. This document provides information on the scope, cost, funding, schedule, and project implementation. Work along the Caltrain Electrification Corridor has been divided into four work segments and respective work areas (WA) as shown in Figure 2-1. PCEP activities are described and summarized by segments and work areas.

Figure 2-1 PCEP Work Segments
Staff presented the quarterly PCEP update to the FTA on June 14.

Overhead Contact System (OCS) foundation installation was shifted from Segment (S) 2 Work Area (WA) 4 and S2WA5 to S2WA3 to facilitate work coordination between the PCEP and the 25th Avenue Grade Separation Project. The work will shift back when installation in this area is complete. OCS cantilever arm installations and bracket setting began in S2WA5. Potholing in Segment 1 began in preparation of potential advancement of foundation installation during the planned tunnel closures in October. Foundation installation began at the future location for Traction Power Substation (TPS) 2. Conduit installation began in Segment 2.

Negotiations are underway with the bidder for the Tunnel Modifications contract. Areas of potential savings were identified and revised pricing is being discussed. PCEP staff anticipates award of contract in July.

Ten weeks of EMU carshell structural testing at an independent facility has begun. Currently the third production cab car is being tested. Stadler expects to ship the first two cab carshells to Salt Lake City next month. The First Article Inspection (FAI) of the first painted carshell was successfully completed.

2.1 Funding Partners Participation in PCEP

The PCEP has a series of weekly, biweekly, monthly and quarterly meetings to coordinate all aspects of the program. The meetings are attended by project staff with participation by our funding partners in accordance with the Funding Partners Oversight Protocol. A summary of funding partner meetings and invitees can be found in Appendix B.

This section of the report provides a summary of the discussions and decisions made at the meetings and a list of funding partners who attended the meetings.

Electrification – Engineering Meeting – Weekly

Purpose: To discuss status, resolution and tracking of Balfour Beatty Infrastructure, Inc. (BBII) and electrification design-related issues, to discuss and monitor the progress of utility relocation compared to schedule, and to discuss third-party coordination activities with PG&E, CHSRA, Union Pacific Rail Road (UPRR), Bay Area Rapid Transit, California State Department of Transportation (Caltrans), Positive Train Control (PTC) and others.

Activity this Month

Funding Partners: CHSRA: Ian Ferrier

Continued discussions on remaining UPRR pole changes, resolution of outstanding issues for the Design-Build (DB) contract, the progression of the interconnections design and PG&E interface, coordination between the PCEP and other JPB projects, the utility relocation status, status of the tunnel contract, updates of the Supervisory Control and Data Acquisition (SCADA) project, updates on DB and program schedule, upcoming changes to the contract in preparation for the Change Management Board (CMB), critical Right of Way (ROW) issues, coordination with key third parties on design review
and permitting for the project, and critical open items such as contractor Requests for Information (RFI), submittals and potential contract changes.

**PCEP Delivery Coordination Meeting – Bi-Weekly**

Purpose: To facilitate high-level coordination and information sharing between cross-functional groups regarding the status of the work for which they are responsible.

**Activity this Month**

June 5 Funding Partners: CHSRA: Ian Ferrier; SFCTA: Luis Zurinaga

The CHSRA recently advanced $32 million to the PCEP, which completes their obligation for non-Proposition 1A funds. The FTA Quarterly Update is scheduled for June 14. The PCEP FEIR addenda for the relocation of Paralleling Station (PS) 2 to the Bayshore Caltrain parking lot and relocation of PS-3 slightly north to avoid the wall of the Broadway Grade Separation are planned for the August JPB meeting. The FAI of EMU carshell paint, colors, color scheme and process is scheduled for June 8. The second cab carshell was delivered to an independent test facility for structural validation testing. Final Design Review meetings for car interiors and lighting are scheduled for this month. OCS potholing and foundation and pole installation continue in Segment 2.

June 19 Funding Partners: CHSRA: Ian Ferrier and Wai-On Siu

Potholing in Segment 1 has begun. The Broadway Grade Separation Project will fund the design costs related to relocating PS-3. Fifteen percent of the Safety Certification checklists have been completed. Additional staff will be engaged to increase the amount of completed checklists. The JPB approved the contract to Mitsui and Amtrak for the electric locomotive. The Final Design Review meetings for EMU car interiors, lighting, and vehicle functionality will occur this week. The CEMOF Invitation for Bids package is undergoing internal review before release to bidders in July. Site work is underway for TPS-2.

**Systems Integration Meeting – Bi-Weekly**

Purpose: To discuss and resolve issues with inter-system interfaces and to identify and assign Action Item Owners for interface points that have yet to be addressed.

**Activity this Month**

Funding Partners: CHSRA: Ian Ferrier and Wai-On Su

Bi-weekly PCEP interface meetings are held to monitor and resolve systems integration issues. The systems integration database is updated as issues are resolved or new items arise. Meetings are held bi-weekly with the electrification contractor to discuss design and construction integration issues. The Systems Integration Lead is also setting up bi-weekly meetings with the EMU Procurement team. The Traction Power SCADA team also holds bi-weekly status meetings. Coordination with the EMU procurement, PTC and Caltrain Capital Project managers responsible for delivery of the 25th Avenue Grade Separation Project, Marin Napoleon Bridge Rehabilitation Project, and the South San Francisco Station Project is ongoing. Caltrain’s CEMOF modification project design is being finalized to issue a bid package. Progress on activities including systems integration testing activities, Federal Railroad Administration (FRA), FTA and safety
certification are being tracked. The Systems Integration test plan has been through an initial review with comments returned to the contractor.

Master Program Schedule (MPS) Meeting – Monthly

Purpose: To review the status of the MPS and discuss the status of major milestones, critical and near critical paths, upcoming Board review items, and progress with the contracts, among others.

Activity this Month

Funding Partners: CHSRA: Ian Ferrier

The monthly meeting in June contained only minor updates. The overall schedule remains unchanged. The forecasted Revenue Service Date (RSD) remains December 2021. The addition of approximately five months of contingency to account for potential risk to the project yields an RSD of April 2022. The program critical path runs through PG&E design and construction to provide permanent power, and concludes with pre-revenue testing. The near-critical path runs through manufacturing and testing of EMU trainsets.

Risk Assessment Meeting – Monthly

Purpose: To identify risks and corresponding mitigation measures. For each risk on the risk register, mitigation measures have been identified and are being implemented. Progress in mitigating these risks is confirmed at the ongoing risk monitoring and monthly risk assessment meetings.

Activity this Month

Funding Partners: CHSRA: Ian Ferrier

No risks were retired and three risks were added. Three risks were revised.

See the Risk Management section (Section 11).

Change Management Board (CMB) – Monthly

Purpose: To review, evaluate and authorize proposed changes to PCEP over $200,000.

Activity this Month

Funding Partners: CHSRA: Simon Whitehorn and Boris Lipkin; MTC: Trish Stoops; SFCTA: Luis Zurinaga; VTA: Jim Lawson; SMCTA: Joe Hurley

Major topics included: contingency usage, potential changes to the Stadler contract and track access delays, differing site condition field orders updates, potential contract incentives as well as other potential changes as part of the BBII contract.

Potential contract changes will follow the PCEP Change Order Procedure. Once approved changes are executed, they will be reported in the Change Management section (Section 9) of this report.
BBII Contract

One change was approved.

Stadler Contract

No changes were approved.

SCADA Contract

No changes were identified for consideration.

2.2 Schedule

The current Master Program Schedule (MPS) reflects a Revenue Service Date (RSD) of December 2021, without adjustment for contingency. This is consistent with the revised baseline established in November 2017. With the addition of approximately five months of contingency to account for potential risk to the project, the RSD is anticipated as April 2022. Due to FTA contingency requirements, a Full Funding Grant Agreement (FFGA) RSD will also be tracked. This date is forecast as August 22, 2022 and represents the final milestone in the Program Plan.

The program critical path runs through PG&E design and construction to provide permanent power, and concludes with pre-revenue testing. The near-critical path runs through design and manufacturing of EMU trainsets. There is no change to the critical and near-critical paths from the prior reporting month.

Table 2-1 indicates major milestone dates for the MPS.

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Program Plan</th>
<th>Progress Schedule (June 2018)¹</th>
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<tbody>
<tr>
<td>First Eight Miles of Electrification Complete to Begin Testing</td>
<td>11/21/2019</td>
<td>06/13/2020²</td>
</tr>
<tr>
<td>Arrival of First Vehicle at JPB</td>
<td>07/29/2019</td>
<td>07/15/2019</td>
</tr>
<tr>
<td>PG&amp;E Provides Permanent Power</td>
<td>09/09/2021</td>
<td>09/09/2021</td>
</tr>
<tr>
<td>Start Pre-Revenue Testing</td>
<td>09/10/2021</td>
<td>09/10/2021</td>
</tr>
<tr>
<td>RSD (w/o Risk Contingency)</td>
<td>12/09/2021</td>
<td>12/09/2021</td>
</tr>
<tr>
<td>RSD (w/ Risk Contingency)</td>
<td>04/22/2022</td>
<td>04/22/2022</td>
</tr>
<tr>
<td>FFGA RSD</td>
<td>08/22/2022</td>
<td>08/22/2022</td>
</tr>
</tbody>
</table>

Note:

¹ Dates may shift slightly as the update of this month’s Progress Schedule is still in progress.
² See “Notable Variances” in Section 7 for explanation on date shift.
2.3 Budget

A summary of the overall budget and expenditure status for the PCEP is provided in Table 2-2 below.

### Table 2-2 Budget and Expenditure Status

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Budget (A)</th>
<th>Current Budget (B)</th>
<th>Cost This Month (C)</th>
<th>Cost To Date (D)</th>
<th>Estimate To Complete (E)</th>
<th>Estimate At Completion (F) = (D) + (E)</th>
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<tr>
<td>Electrification Subtotal</td>
<td>$1,316,125,208</td>
<td>$1,316,125,208</td>
<td>$13,535,468</td>
<td>$370,912,982</td>
<td>$945,212,226</td>
<td>$1,316,125,208</td>
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<tr>
<td>EMU Subtotal</td>
<td>$664,127,325</td>
<td>$664,127,325</td>
<td>$1,105,810</td>
<td>$118,527,263</td>
<td>$545,600,062</td>
<td>$664,127,325</td>
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<tr>
<td>PCEP TOTAL</td>
<td>$1,980,252,533</td>
<td>$1,980,252,533</td>
<td>$14,641,278</td>
<td>$489,440,245</td>
<td>$1,490,812,288</td>
<td>$1,980,252,533</td>
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</table>

Notes regarding tables above:
1. Column B “Current Budget” includes executed change orders and awarded contracts.
2. Column C “Cost This Month” represents the cost of work performed this month.
3. Column D “Cost To Date” includes actuals (amount paid) and accruals (amount of work performed) to date.

2.4 Board Actions

- Authorize negotiation and execution of Tunnel Modification construction contract
- Authorize contract for purchase of used electric locomotive

Future anticipated board actions include:

- July – Meeting cancelled
- August
  - Addendum to PCEP FEIR – Relocation of PS-2
  - Addendum to PCEP FEIR – Relocation of PS-3
  - Authorizing contract change order for installation of insulated joints
  - Authorizing contract change order for designing pole changes along UPRR-owned Main Track 1
- September
  - Award Special Testing and Inspection Services contract
- October – None
- November
  - Award CEMOF Modifications construction contract
- December
  - Award of Construction Management Support Services contract
  - Award of Safety and Security Support Services

2.5 Government and Community Affairs

There were no outreach events this month.
3.0 ELECTRIFICATION – INFRASTRUCTURE

This section reports on the progress of the Electrification, SCADA, and Tunnel Modification components. A brief description on each of the components is provided below.

3.1 Electrification

The Electrification component of the PCEP includes installation of 138 miles of single track and OCS for the distribution of electrical power to the EMUs. The OCS will be powered from a 25 kilovolt (kV), 60-Hertz, single phase, alternating current supply system consisting of two traction power substations (TPS), one switching station (SS), and seven paralleling stations (PS). Electrification will be performed using a DB delivery method.

Activity This Month

- OCS foundation installation began in S2WA3 to facilitate work coordination between PCEP and the 25th Avenue Grade Separation Project. The table below summarizes the current progress of foundation installation. Foundation installation will continue in S2WA4 and S2WA5 upon completion of this specific section of foundations.
- OCS pole installation continued in S2WA5. The table below summarizes the current progress of pole installation.
- OCS cantilever arm installation and bracket setting began in S2WA5.
- Potholing at proposed OCS locations continued in Segments 2 and 4 in advance of foundation installation. Potholing in Segment 1 also began in preparation of potential advancement of foundation installation during planned tunnel outages in October. BBII also continued to resolve conflicts found during the potholing process, such as loose concrete, asphalt, and other debris.
- Relocation of signal cables found in conflict with planned OCS foundations continues as conflicts are identified.
- Continued site work and began installation of foundations at the future location for TPS-2.
- Began conduit installation in Segment 2.
- Continued progression of the OCS design with BBII in Segments 2 and 4, including review of Design Change Notices for those two Segments.
- Received 65% OCS Foundation and Pole Layouts for Segment 1A.
- Continued design review coordination with local jurisdictions for the OCS, Traction Power Facilities, and Bridge Attachments design in Segments 2 and 4, including responses to comments from jurisdictions.
- Continued to review and coordinate signal and communication design submittals with BBII.
- Reviewed 65% submittal for Segment 1 and 3 Bridge Screening and Attachments and issued a Statement of No Objection.
- Reviewed 65% Traction Power Facilities for Segments 1 and 3.
• Received and reviewed Line of Sight Segment 2 Interim Studies.
• Received Interim System Wide Power Quality Study.
• The PCEP team and BBII continue to work through Site Specific Work Plans (SSWP) for upcoming field work.
• Continued tree pruning and removals in Segment 3.
• Continued coordination efforts with PG&E for infrastructure improvements, TPS interconnects and new service drop locations. The PCEP team continues to work with PG&E for the finalization of protection scheme studies. PG&E and the Peninsula Corridor Joint Powers Board (JPB) are continuing to negotiate the terms of Supplemental Agreement Number 4.

A summary of the work progress by segment is provided in Table 3-1 below.

Table 3-1 Work Progress by Segment

<table>
<thead>
<tr>
<th>Segment</th>
<th>Work Area</th>
<th>Foundations Required</th>
<th>Completed this Month</th>
<th>Completed to Date</th>
<th>Poles Required</th>
<th>Completed this Month</th>
<th>Completed to Date</th>
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<tr>
<td>2</td>
<td></td>
<td>5</td>
<td>256</td>
<td>0</td>
<td>172</td>
<td>162b</td>
<td>18</td>
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<tr>
<td>4</td>
<td></td>
<td>366</td>
<td>28</td>
<td>194</td>
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<td>37</td>
<td>37</td>
<td>147</td>
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<td>0</td>
</tr>
</tbody>
</table>

Note:

a. Foundations required do not match poles required as guy foundations are needed in some locations for extra support.
b. Values in previous reports were from RFP design documents. The values shown match with current design.

Activity Next Month

• Continue installation of OCS foundations in S2WA3 to facilitate work coordination between PCEP and 25th Avenue Grade Separation.
• Continue installation of OCS foundations in S2WA5 and S2WA4.
• Continue pole, cantilever, and bracket installation in S2WA5.
• Continue work with BBII on field investigation activities and designs, which will include the progression of the OCS, traction power, bonding and grounding, signal systems, and other civil infrastructures such as overhead bridge protections.
• Continue potholing and clearing of obstructions at proposed OCS locations. Potholing will continue in Segments 1, 2 and 4.
• Continue site and foundation work on TPS-2.
• Continue conduit installations in Segment 2.
• Continue coordination with UPRR on signal and OCS design.
• Continue coordination with stakeholders on the constant warning solution.
• Continue review of BBII work plans for upcoming construction activities.
• Complete 35% design for PG&E interconnection.
• Continue coordination with PG&E on final design for PG&E infrastructure.
• Continue design reviews and coordination with local jurisdictions.
• Continue tree pruning and removals.
3.2 **Supervisory Control and Data Acquisition**

SCADA is a system that monitors and controls field devices for electrification, including substations, PSs and the OCS. SCADA will be integrated with the base operating system for Caltrain Operations and Control, which is the Rail Operations Center System.

**Activity This Month**

- Worked on schedule tasks such as the Power and Heating, Ventilation, and Air Conditioning (HVAC) Sufficiency Study Plan.
- Began preparing final red-line vertical rack diagram of Tech Refresh Project.
- Added to the electrical final design drawings to include a new layer with section and sub-section identifications both below the power section and above the catenary and electrical device icons.

**Activity Next Month**

- Prepare and deliver the Monthly Report.
- Attend project status meetings.
- Support on-going discussions concerning Requests for Information.
- Prepare and deliver the Monthly Schedule.
- Deliver the FDR documents addenda to resolve comments.
- Update layer of the final design drawing.
- Upon acceptance of the final design drawing restart work on supporting database.
- Continue work preparing the test environment.
- Perform Power and HVAC Sufficiency Study site survey.

3.3 **Tunnel Modification**

Tunnel modifications will be required on the four tunnels located in San Francisco. This effort is needed to accommodate the required clearance for the OCS to support electrification of the corridor. Outside of the PCEP scope, Caltrain Engineering has requested the PCEP team to manage completion of design and construction for the Tunnel 1 and Tunnel 4 Drainage Rehab Project. The Drainage Rehab Project is funded separately from PCEP. Construction will occur concurrently with the Electrification DB contractor's efforts in Segment 1.

**Activity This Month**

- Completed negotiations with low bidder. Project team identified areas of potential savings through negotiations and worked with the contractor on a revised price.

**Activity Next Month**

- Award Tunnel Contract.
- Issue the Limited Notice to Proceed (LNTP).
4.0 ELECTRIC MULTIPLE UNITS

This section reports on the progress of the Electric Multiple Units procurement and the Centralized Equipment Maintenance and Operations Facility (CEMOF) modifications.

4.1 Electric Multiple Units

The EMU procurement component of the PCEP consists of the purchase of 96 Stadler EMUs. The EMUs will consist of both cab and non-cab units configured as 16 six-car fixed trainsets. Power will be obtained from the OCS via roof-mounted pantographs, which will power the electric traction motors. The EMUs will replace a portion of the existing diesel locomotives and passenger cars currently in use by Caltrain.

Activity This Month

- The Final Design Phase of EMU systems continues to near completion, with exception of Truck (bogie) Assembly, and software intensive systems (Monitoring and Diagnostic and Train Control Systems). The FDR of the Truck Assembly is scheduled for October 2018 and software intensive systems are scheduled for December 2019.
- Stadler’s new railcar manufacturing facility construction continues to advance on schedule.
- Stadler continues to have discussions with Wabtec as the Interoperable Electronic Train Management System (I-ETMS) supplier for carborne PTC equipment. Wabtec has submitted a technical and commercial proposal to Stadler and face-to-face discussions have taken place.
- EMU design coordination discussions continue with representatives from Caltrain Operations and Maintenance, Caltrain Public Outreach, the FRA, the FTA Project Management Oversight Contractor, Safety and Quality Assurance personnel, and PCEP Program Scheduling.
- The PCEP Team continues to address systemwide interface issues involving the emerging EMU design, existing Caltrain wayside infrastructure, and emerging Electrification Project designs.
- Ten weeks of carshell structural testing at an independent facility in Dresden, Germany has commenced. The third production Cab Car is being tested.
- First Article Inspection (FAI) of first painted carshell was successfully completed.

Activity Next Month

- Continue to advance completion of FDRs.
- Shipment of the first two cab carshells from Altenrhein to Salt Lake City.
- Continuation of carshell design verification structural testing.
- Continue to advance Stadler engagement of Wabtec as the onboard PTC supplier.
- Continue work with the FRA on EMU compliance issues.
4.2 Centralized Equipment Maintenance and Operations Facility Modifications

The CEMOF Upgrade project will provide work areas for performing maintenance on the new EMUs.

Activity This Month

- Finalized Invitation for Bid (IFB) package after PCEP and Caltrain final reviews.

Activity Next Month

- Release IFB to prospective bidders on July 26.
5.0 SAFETY

Safety and Security requirements and plans are necessary to comply with applicable laws and regulations related to safety, security, and emergency response activities. Safety staff coordinates with contractors to review and plan the implementation of contract program safety requirements. Safety project coordination meetings continue to be conducted on a monthly basis to promote a clear understanding of project safety requirements as defined in contract provisions and program safety documents.

Activity This Month

- Project staff provided input and continued its participation in the BBII monthly “All Hands” contractor workforce safety meetings. Safety communication with project field staff on all work shifts continues on an ongoing basis to discuss project related hazards and mitigation initiatives.
- Continued to provide input and oversight of the contractor SSWP safety provisions and ongoing safety construction oversight and inspections.
- Reviewed and commented on proposed design variance requests associated with a potential impact on project safety.
- Coordinated with EMU and CEMOF design staff and updated the hazard analysis of the proposed EMU electrification work flow processes at the vehicle equipment maintenance facility.
- Provided inspection of new contractor equipment to be used on the ROW prior to being placed into service.
- Participated in weekly project coordination meetings with the contractor to review open issues and recommended action items.
- Participated in the FTA PCEP quarterly meeting update.
- In partnership with the contractor, assess the status and reinforce the application of project safety measures initiated as a result of prior incidents.
- Working on SCADA Certifiable Elements List for SCADA Contract.

Activity Next Month

- Monthly safety communication meetings continue to be scheduled for the Project Safety and Security Certification Committee, Fire/Life Safety Committee, and other project-related contractor and JPB safety meetings to discuss safety priorities.
- Continue focus on performing site safety inspections on the OCS foundation, pole installations, potholing, and tree trimming field work to assess safety work practices and identify additional opportunities for improvement. Conduct contractor equipment inspections.
- Finalize the Hazards Analysis on the electrification of CEMOF shop to ensure safety while performing maintenance on the EMUs.
6.0 QUALITY ASSURANCE

The Quality Assurance (QA) staff performs technical reviews for planning, implementing, evaluating, and maintaining an effective program to verify that all equipment, structures, components, systems, and facilities are designed, procured, constructed, installed, and maintained in accordance with established criteria and applicable codes and standards throughout the design, construction, startup and commissioning of the PCEP.

Activity This Month

- Staff meetings with BBII QA/Quality Control (QC) management representatives continue weekly.
- Continued review of BBII-generated Nonconformance Reports (NCR) and Construction Discrepancy Reports for proper discrepancy condition, discrepancy cause, disposition, corrective and preventive action and verification of closure.
- Continued review and approval of Design Variance Requests for BBII and PGH Wong for QA/QC and inspection issues/concerns.
- Continued review of BBII QC Inspectors Daily Reports, Construction Quality Control Reports and Surveillance Reports for work scope, performance of required duties, adequacy, non-conformances, test/inspection results, follow up on unresolved issues, and preciseness.
- Continued review of BBII Material Receipt Reports, Certificates of Conformance, Certified Tests Reports, and Certificates of Analysis to ensure delivered project materials conform to specifications, and that contractually required quality and test support documents are adequate and reflect concise conditions per the purchase order requirements.
- Regularly scheduled design reviews and surveillances began on project design packages and will continue through the summer of 2018.
- Continued review of Stadler QA activities, including: NCR review, Inspection Exception Reports, Car History Reports and Weekly Status Reports.
- NCR issued to BBII/MRS/Noratel Power for a failed First Article Inspection of 300A Impendence Bond. Noratel will be revising their test and inspection criteria and protocols to assure AREMA compliance.
Table 6-1 below provides details on the status of audits performed through the reporting period.

**Table 6-1 Quality Assurance Audit Summary**

<table>
<thead>
<tr>
<th>Quality Assurance Activity</th>
<th>This Reporting Period</th>
<th>Total to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audits Conducted</td>
<td>6</td>
<td>65</td>
</tr>
<tr>
<td><strong>Audit Findings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit Findings Issued</td>
<td>4</td>
<td>47</td>
</tr>
<tr>
<td>Audit Findings Open</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Audit Findings Closed</td>
<td>4</td>
<td>47</td>
</tr>
<tr>
<td><strong>Non-Conformances</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Conformances Issued</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Non-Conformances Open</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Non-Conformances Closed</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>

**Activity Next Month**

- Six audits are planned and scheduled: three design packages, Smith Emery Testing Lab, CEL Testing Lab, and Signet Testing Lab.
7.0 SCHEDULE

The current Master Program Schedule (MPS) reflects a Revenue Service Date (RSD) of December 2021, without adjustment for contingency. This is consistent with the revised baseline established in November 2017. With the addition of approximately five months of contingency to account for potential risk to the project, the RSD is anticipated as April 2022. Due to FTA contingency requirements, an FFGA RSD will also be tracked. This date is forecast as August 22, 2022 and represents the final milestone in the Program Plan.

The program critical path runs through PG&E design and construction to provide permanent power, and concludes with pre-revenue testing. The near-critical path runs through manufacturing and testing of EMU trainsets. There is no change to the critical and near-critical paths from the prior reporting month.

Shown below, Table 7-1 indicates major milestone dates for the MPS. Items listed in Table 7-2 reflect the critical path activities/milestones for the PCEP. Table 7-3 lists near-critical activities on the horizon.

Notable Variances

BBII is currently reporting an overall delay to substantial completion, including the intermediate milestone of Segment 4/Test Track (first eight miles of electrification) completion. This delay is being evaluated by the BBII and JPB and does not constitute a schedule extension for the program at this time.

Table 7-1 Schedule Status

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Program Plan</th>
<th>Progress Schedule (June 2018)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Eight Miles of Electrification Complete to Begin Testing</td>
<td>11/21/2019</td>
<td>06/13/2020²</td>
</tr>
<tr>
<td>Arrival of First Vehicle at JPB</td>
<td>07/29/2019</td>
<td>07/15/2019</td>
</tr>
<tr>
<td>PG&amp;E Provides Permanent Power</td>
<td>09/09/2021</td>
<td>09/09/2021</td>
</tr>
<tr>
<td>Start Pre-Revenue Testing</td>
<td>09/10/2021</td>
<td>09/10/2021</td>
</tr>
<tr>
<td>RSD (w/o Risk Contingency)</td>
<td>12/09/2021</td>
<td>12/09/2021</td>
</tr>
<tr>
<td>RSD (w/ Risk Contingency)</td>
<td>04/22/2022</td>
<td>04/22/2022</td>
</tr>
<tr>
<td>FFGA RSD</td>
<td>08/22/2022</td>
<td>08/22/2022</td>
</tr>
</tbody>
</table>

¹ Note:
² Dates may shift slightly as the update of this month’s Progress Schedule is still in progress.
² See “Notable Variances” above for explanation on date shift.
## Table 7-2 Critical Path Summary

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG&amp;E Final Design and Construction to provide Permanent Power</td>
<td>April 2016</td>
<td>09/09/2021</td>
</tr>
<tr>
<td>Pre-Revenue Testing</td>
<td>09/10/2021</td>
<td>12/09/2021</td>
</tr>
<tr>
<td>RSD w/out Risk Contingency¹</td>
<td>12/09/2021</td>
<td>12/09/2021</td>
</tr>
<tr>
<td>RSD w/ Risk Contingency¹</td>
<td>04/22/2022</td>
<td>04/22/2022</td>
</tr>
</tbody>
</table>

¹ Milestone activity.

## Table 7-3 Near-Term, Near-Critical with Less Than Three Months of Float

<table>
<thead>
<tr>
<th>Work Breakdown Structure</th>
<th>Activity</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicles</td>
<td>EMU Manufacturing and Testing</td>
<td>Project Delivery</td>
</tr>
</tbody>
</table>
# 8.0 BUDGET AND EXPENDITURES

The summary of overall budget and expenditure status for the PCEP is shown in the following tables. Table 8-1 reflects the Electrification budget, Table 8-2 reflects the EMU budget, and Table 8-3 reflects the overall project budget.

## Table 8-1 Electrification Budget & Expenditure Status

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Budget (A)</th>
<th>Current Budget (B)</th>
<th>Cost This Month (C)</th>
<th>Cost To Date (D)</th>
<th>Estimate To Complete (E)</th>
<th>Estimate At Completion (F) = (D) + (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELECTRIFICATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrification (A)</td>
<td>$696,610,558</td>
<td>$708,604,133</td>
<td>$9,179,700</td>
<td>$224,588,442</td>
<td>$484,015,691</td>
<td>$708,604,133</td>
</tr>
<tr>
<td>SCADA</td>
<td>$ -</td>
<td>$3,446,917</td>
<td>$ -</td>
<td>$1,378,767</td>
<td>$2,068,150</td>
<td>$3,446,917</td>
</tr>
<tr>
<td>Tunnel Modifications</td>
<td>$11,029,649</td>
<td>$11,029,649</td>
<td>$ -</td>
<td>$ -</td>
<td>$11,029,649</td>
<td>$11,029,649</td>
</tr>
<tr>
<td>Real Estate</td>
<td>$28,503,369</td>
<td>$28,503,369</td>
<td>$37,529</td>
<td>$13,746,626</td>
<td>$14,756,743</td>
<td>$28,503,369</td>
</tr>
<tr>
<td>Private Utilities</td>
<td>$63,515,298</td>
<td>$94,778,380</td>
<td>$1,225,099</td>
<td>$25,567,858</td>
<td>$69,210,523</td>
<td>$94,778,380</td>
</tr>
<tr>
<td>Management Oversight</td>
<td>$141,506,257</td>
<td>$141,526,164</td>
<td>$1,707,260</td>
<td>$88,717,225</td>
<td>$52,808,938</td>
<td>$141,526,164</td>
</tr>
<tr>
<td>Executive Management</td>
<td>$7,452,866</td>
<td>$7,452,866</td>
<td>$160,601</td>
<td>$4,719,928</td>
<td>$2,732,939</td>
<td>$7,452,866</td>
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<tr>
<td>Planning</td>
<td>$7,281,997</td>
<td>$7,281,997</td>
<td>$67,805</td>
<td>$5,496,093</td>
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<tr>
<td>Community Relations</td>
<td>$2,789,663</td>
<td>$2,789,663</td>
<td>$11,675</td>
<td>$1,245,349</td>
<td>$1,544,314</td>
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<tr>
<td>Safety &amp; Security</td>
<td>$2,421,783</td>
<td>$2,421,783</td>
<td>$78,554</td>
<td>$1,440,999</td>
<td>$980,784</td>
<td>$2,421,783</td>
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<td>Project Management Services</td>
<td>$19,807,994</td>
<td>$19,807,994</td>
<td>$137,768</td>
<td>$9,635,840</td>
<td>$10,172,154</td>
<td>$19,807,994</td>
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<td>Engineering &amp; Construction</td>
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<td>$11,805,793</td>
<td>$230,432</td>
<td>$4,233,066</td>
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<td>$11,805,793</td>
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<tr>
<td>IT Support</td>
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<td>$331,987</td>
<td>$ -</td>
<td>$331,987</td>
<td>$0</td>
<td>$331,987</td>
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<tr>
<td>Operations Support</td>
<td>$1,445,867</td>
<td>$1,445,867</td>
<td>$99,037</td>
<td>$792,537</td>
<td>$653,330</td>
<td>$1,445,867</td>
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<tr>
<td>General Support</td>
<td>$4,166,577</td>
<td>$4,166,577</td>
<td>$145,187</td>
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<td>$1,207,733</td>
<td>$4,166,577</td>
</tr>
<tr>
<td>Budget / Grants / Finance</td>
<td>$1,229,345</td>
<td>$1,229,345</td>
<td>$41,195</td>
<td>$842,306</td>
<td>$387,039</td>
<td>$1,229,345</td>
</tr>
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<td>Legal</td>
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<td>$2,445,646</td>
<td>$32,963</td>
<td>$2,805,752</td>
<td>$(360,105)</td>
<td>$2,445,646</td>
</tr>
<tr>
<td>Other Direct Costs</td>
<td>$5,177,060</td>
<td>$5,177,060</td>
<td>$62,649</td>
<td>$2,758,231</td>
<td>$2,418,829</td>
<td>$5,177,060</td>
</tr>
<tr>
<td>TASI Support</td>
<td>$55,275,084</td>
<td>$55,275,084</td>
<td>$1,162,881</td>
<td>$11,003,629</td>
<td>$44,271,455</td>
<td>$55,275,084</td>
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<tr>
<td>Insurance</td>
<td>$3,500,000</td>
<td>$4,305,769</td>
<td>$ -</td>
<td>$2,555,769</td>
<td>$1,750,000</td>
<td>$4,305,769</td>
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<tr>
<td>Environmental Mitigations</td>
<td>$15,798,320</td>
<td>$14,972,644</td>
<td>$ -</td>
<td>$712,000</td>
<td>$14,260,644</td>
<td>$14,972,644</td>
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<tr>
<td>Required Projects</td>
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<td>$15,562,378</td>
<td>$14,252</td>
<td>$452,056</td>
<td>$15,110,322</td>
<td>$15,562,378</td>
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<tr>
<td>Maintenance Training</td>
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<td>$1,021,808</td>
<td>$ -</td>
<td>$1,021,808</td>
<td>$1,021,808</td>
<td>$1,021,808</td>
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<td>Finance Charges</td>
<td>$5,056,838</td>
<td>$5,056,838</td>
<td>$208,745</td>
<td>$2,190,610</td>
<td>$2,866,228</td>
<td>$5,056,838</td>
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<td>Contingency</td>
<td>$276,970,649</td>
<td>$232,042,075</td>
<td>$ -</td>
<td>$ -</td>
<td>$194,626,356</td>
<td>$194,626,356</td>
</tr>
<tr>
<td>Forecasted Costs and Changes</td>
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<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$37,415,719</td>
<td>$37,415,719</td>
</tr>
<tr>
<td><strong>ELECTRIFICATION SUBTOTAL</strong></td>
<td>$1,316,125,208</td>
<td>$1,316,125,208</td>
<td>$13,535,468</td>
<td>$370,912,982</td>
<td>$945,212,226</td>
<td>$1,316,125,208</td>
</tr>
</tbody>
</table>

Notes regarding tables above:

1. "Current Budget" includes executed change orders and awarded contracts.
2. Column C "Cost This Month" represents the cost of work performed this month.
3. Column D "Cost To Date" includes actuals (amount paid) and accruals (amount of work performed) to date.
4. Cost To Date for "Electrification" includes 5% for Contractor’s retention until authorization of retention release.
5. The agency labor is actual through May 2018 and accrued for June 2018.
### Table 8-2 EMU Budget & Expenditure Status

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Budget</th>
<th>Current Budget</th>
<th>Cost This Month</th>
<th>Cost To Date</th>
<th>Estimate To Complete</th>
<th>Estimate At Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMU</td>
<td>$550,899,459</td>
<td>$550,564,069</td>
<td>$ -</td>
<td>$88,174,385</td>
<td>$462,389,684</td>
<td>$550,564,069</td>
</tr>
<tr>
<td>CEMOF Modifications</td>
<td>$1,344,000</td>
<td>$1,344,000</td>
<td>$ -</td>
<td>$ -</td>
<td>$1,344,000</td>
<td>$1,344,000</td>
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<tr>
<td>Management Oversight</td>
<td>$64,139,103</td>
<td>$64,139,103</td>
<td>$707,870</td>
<td>$28,752,040</td>
<td>$35,387,063</td>
<td>$64,139,103</td>
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<tr>
<td>Executive Management</td>
<td>$5,022,302</td>
<td>$5,022,302</td>
<td>$106,886</td>
<td>$3,002,182</td>
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<td>$5,022,302</td>
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<tr>
<td>Community Relations</td>
<td>$1,685,614</td>
<td>$1,685,614</td>
<td>$9,419</td>
<td>$441,433</td>
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<td>$1,685,614</td>
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<tr>
<td>Safety &amp; Security</td>
<td>$556,067</td>
<td>$556,067</td>
<td>$6,744</td>
<td>$351,709</td>
<td>$204,358</td>
<td>$556,067</td>
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<tr>
<td>Project Mgmt Services</td>
<td>$13,275,280</td>
<td>$13,275,280</td>
<td>$84,438</td>
<td>$6,323,692</td>
<td>$6,951,588</td>
<td>$13,275,280</td>
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<td>Eng &amp; Construction</td>
<td>$89,113</td>
<td>$89,113</td>
<td>$ -</td>
<td>$23,817</td>
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<td>$89,113</td>
</tr>
<tr>
<td>EMU Eng &amp; Mgmt</td>
<td>$32,082,556</td>
<td>$32,082,556</td>
<td>$347,818</td>
<td>$13,412,359</td>
<td>$18,670,197</td>
<td>$32,082,556</td>
</tr>
<tr>
<td>IT Support</td>
<td>$1,027,272</td>
<td>$1,027,272</td>
<td>$9,344</td>
<td>$423,817</td>
<td>$603,455</td>
<td>$1,027,272</td>
</tr>
<tr>
<td>Operations Support</td>
<td>$1,878,589</td>
<td>$1,878,589</td>
<td>$ -</td>
<td>$277,200</td>
<td>$1,601,388</td>
<td>$1,878,589</td>
</tr>
<tr>
<td>General Support</td>
<td>$2,599,547</td>
<td>$2,599,547</td>
<td>$69,475</td>
<td>$1,298,279</td>
<td>$1,301,268</td>
<td>$2,599,547</td>
</tr>
<tr>
<td>Budget / Grants / Finance</td>
<td>$712,123</td>
<td>$712,123</td>
<td>$24,013</td>
<td>$486,280</td>
<td>$225,843</td>
<td>$712,123</td>
</tr>
<tr>
<td>Legal</td>
<td>$1,207,500</td>
<td>$1,207,500</td>
<td>$12,961</td>
<td>$1,019,345</td>
<td>$188,155</td>
<td>$1,207,500</td>
</tr>
<tr>
<td>Other Direct Costs</td>
<td>$4,003,139</td>
<td>$4,003,139</td>
<td>$36,770</td>
<td>$1,691,927</td>
<td>$2,311,212</td>
<td>$4,003,139</td>
</tr>
<tr>
<td>TASI Support</td>
<td>$2,740,000</td>
<td>$2,740,000</td>
<td>$ -</td>
<td>$ -</td>
<td>$2,740,000</td>
<td>$2,740,000</td>
</tr>
<tr>
<td>Required Projects</td>
<td>$4,500,000</td>
<td>$4,500,000</td>
<td>$270,000</td>
<td>$270,000</td>
<td>$4,230,000</td>
<td>$4,500,000</td>
</tr>
<tr>
<td>Finance Charges</td>
<td>$1,941,800</td>
<td>$1,941,800</td>
<td>$127,941</td>
<td>$1,330,837</td>
<td>$610,963</td>
<td>$1,941,800</td>
</tr>
<tr>
<td>Contingency</td>
<td>$38,562,962</td>
<td>$38,898,352</td>
<td>$ -</td>
<td>$ -</td>
<td>$37,962,352</td>
<td>$37,962,352</td>
</tr>
<tr>
<td>Forecasted Costs and Changes</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$936,000</td>
<td>$936,000</td>
</tr>
<tr>
<td><strong>EMU SUBTOTAL</strong></td>
<td><strong>$664,127,325</strong></td>
<td><strong>$664,127,325</strong></td>
<td><strong>$1,105,810</strong></td>
<td><strong>118,527,263</strong></td>
<td><strong>545,600,062</strong></td>
<td><strong>$664,127,325</strong></td>
</tr>
</tbody>
</table>

Notes regarding tables above:

1. "Current Budget" includes executed change orders and awarded contracts.
2. Column C "Cost This Month" represents the cost of work performed this month.
3. Column D "Cost To Date" includes actuals (amount paid) and accruals (amount of work performed) to date.
4. The agency labor is actual through May 2018 and accrued for June 2018.

### Table 8-3 PCEP Budget & Expenditure Status

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Budget</th>
<th>Current Budget</th>
<th>Cost This Month</th>
<th>Cost To Date</th>
<th>Estimate To Complete</th>
<th>Estimate At Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrification Subtotal</td>
<td>$1,316,125,208</td>
<td>$1,316,125,208</td>
<td>$13,535,468</td>
<td>$370,912,982</td>
<td>$945,212,226</td>
<td>$1,316,125,208</td>
</tr>
<tr>
<td>EMU Subtotal</td>
<td>$664,127,325</td>
<td>$664,127,325</td>
<td>$1,105,810</td>
<td>$118,527,263</td>
<td>$545,600,062</td>
<td>$664,127,325</td>
</tr>
<tr>
<td><strong>PCEP TOTAL</strong></td>
<td><strong>$1,980,252,533</strong></td>
<td><strong>$1,980,252,533</strong></td>
<td><strong>$14,641,278</strong></td>
<td><strong>$489,440,245</strong></td>
<td><strong>$1,490,812,288</strong></td>
<td><strong>$1,980,252,533</strong></td>
</tr>
</tbody>
</table>

Notes regarding tables above:

1. Column B "Current Budget" includes executed change orders and awarded contracts.
2. Column C "Cost This Month" represents the cost of work performed this month.
3. Column D "Cost To Date" includes actuals (amount paid) and accruals (amount of work performed) to date.

Appendix D includes costs broken down by Standard Cost Code (SCC) format. This format is required for reporting of costs to the FTA. The overall project total in the SCC format is lower than the project costs in table 8-3. This is due to the exclusion of costs incurred prior to the project entering the Project Development phase.
## 9.0 CHANGE MANAGEMENT

The change management process establishes a formal administrative work process associated with the initiation, documentation, coordination, review, approval and implementation of changes that occur during the design, construction or manufacturing of the PCEP. The change management process accounts for impacts of the changes and ensures prudent use of contingency.

Currently the three PCEP contracts are BBII, Stadler, and SCADA. Future PCEP contracts such as CEMOF Modifications and the Tunnel Notching will also follow the change management process.

A log of all executed change orders can be found in Appendix E.

### Executed Contract Change Orders (CCO) This Month

#### Electrification Contract

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/25/18</td>
<td>BBI-053-CCO-010</td>
<td>Pothole Change Of Shift</td>
<td>$300,000</td>
<td>$300,000</td>
</tr>
<tr>
<td>06/25/18</td>
<td>BBI-053-CCO-013</td>
<td>Field Order 31 - Signal Cable Relocation</td>
<td>$95,892</td>
<td>$95,892</td>
</tr>
<tr>
<td>06/26/18</td>
<td>BBI-053-CCO-005</td>
<td>Field Order 26 and 30 - Signal Cable Relocation</td>
<td>$191,836</td>
<td>$191,836</td>
</tr>
<tr>
<td>06/28/18</td>
<td>BBI-053-CCO-014</td>
<td>Field Order 36 and 38 - Signal Cable Relocation</td>
<td>$145,694</td>
<td>$145,694</td>
</tr>
<tr>
<td>06/29/18</td>
<td>BBI-053-CCO-007</td>
<td>Track Access Delays 2017 Quarter 2</td>
<td>$297,512</td>
<td>$297,512</td>
</tr>
<tr>
<td>06/29/18</td>
<td>BBI-053-CCO-011</td>
<td>Field Orders for Differing Site Condition (FO#s Partial 07A , 08-14)</td>
<td>$181,013</td>
<td>$181,013</td>
</tr>
<tr>
<td>06/29/18</td>
<td>BBI-053-CCO-015</td>
<td>TASI Pilot Transportation 2017 Costs</td>
<td>$67,345</td>
<td>$67,345</td>
</tr>
<tr>
<td>06/29/18</td>
<td>BBI-053-CCO-017</td>
<td>Field Order 27 - NorCal Fiber Potholing</td>
<td>$93,073</td>
<td>$93,073</td>
</tr>
<tr>
<td>06/29/18</td>
<td>BBI-053-CCO-018</td>
<td>Field Order 29 - NorCal Fiber Potholing</td>
<td>$76,197</td>
<td>$76,197</td>
</tr>
<tr>
<td>06/29/18</td>
<td>BBI-053-CCO-020</td>
<td>Field Order 15, 16, 17, 18 and 19 Potholing DSC Removals</td>
<td>$118,364</td>
<td>$118,364</td>
</tr>
</tbody>
</table>

Total $1,562,469 $1,566,926 $481,013 $1,566,926

1 Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.

#### EMU Contract

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

Total $0 $0

1 Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.

#### SCADA Contract

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

Total $0 $0

1 Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.
10.0 FUNDING

Figure 10-1 depicts a summary of the funding plan for the PCEP. It provides a breakdown of the funding partners as well as the allocated funds. As previously noted, the JPB received approval of the FFGA from the FTA in May 2017. The Agreement provides the project with a commitment of $647 million in federal funding. To date, $172.9 million has been made available to the project by the FTA. The FTA recently released the Fiscal Year 2018 apportionments, which included the next $100 million in Core Capacity funding. JPB staff is working with FTA to make the funding available to the project.

Figure 10-1 Funding Plan

<table>
<thead>
<tr>
<th>Fund Source</th>
<th>Amount</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTA Core Capacity</td>
<td>$647,000,000</td>
<td>32.67%</td>
</tr>
<tr>
<td>FTA Section 5307 (EMU only)*</td>
<td>$315,000,000</td>
<td>15.91%</td>
</tr>
<tr>
<td>FTA Section 5307 (Environmental / Pre Development only)</td>
<td>$15,676,000</td>
<td>0.79%</td>
</tr>
<tr>
<td>Prop 1A</td>
<td>$600,000,000</td>
<td>30.30%</td>
</tr>
<tr>
<td>High Speed Rail Cap and Trade</td>
<td>$113,000,000</td>
<td>5.71%</td>
</tr>
<tr>
<td>Transit &amp; Intercity Rail Capital Program</td>
<td>$20,000,000</td>
<td>1.01%</td>
</tr>
<tr>
<td>Prop 1B (Public Transportation Modernization &amp; Improvement Account)</td>
<td>$8,000,000</td>
<td>0.40%</td>
</tr>
<tr>
<td>Bridge Toll Funds (RM1/RM2)</td>
<td>$89,430,000</td>
<td>4.48%</td>
</tr>
<tr>
<td>Carl Moyer</td>
<td>$20,000,000</td>
<td>1.01%</td>
</tr>
<tr>
<td>SFCTA/SMFTA**</td>
<td>$44,382,178</td>
<td>2.29%</td>
</tr>
<tr>
<td>SMCTA Measure A</td>
<td>$44,382,178</td>
<td>2.29%</td>
</tr>
<tr>
<td>VTA Measure A</td>
<td>$41,382,177</td>
<td>2.15%</td>
</tr>
<tr>
<td>Santa Clara (VTA) 7-Party MDU Contribution</td>
<td>$20,000,000</td>
<td>1.01%</td>
</tr>
<tr>
<td>San Francisco 7-Party MDU Contribution</td>
<td>$20,000,000</td>
<td>1.01%</td>
</tr>
<tr>
<td>San Mateo (SMCTA) 7-Party MDU Contribution</td>
<td>$20,000,000</td>
<td>1.01%</td>
</tr>
<tr>
<td>Caltrain Low Carbon Transit Operations Cap and Trade</td>
<td>$9,000,000</td>
<td>0.45%</td>
</tr>
<tr>
<td>Prior Local Contribution</td>
<td>$9,000,000</td>
<td>0.45%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,980,252,533</strong></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
*Includes necessary fund transfer with SMCTA
**Includes $4M CMAQ Transfer considered part of SF local contribution
11.0 RISK MANAGEMENT

The risk management process is conducted in an iterative fashion throughout the life of the project. During this process, new risks are identified, other risks are resolved or managed, and potential impacts and severity modified based on the current situation. The Risk Management team’s progress report includes a summary on the effectiveness of the Risk Management Plan, any unanticipated effects, and any correction needed to handle the risk appropriately.

The Risk Management team meets monthly to identify risks and corresponding mitigation measures. Each risk is graded based on the potential cost and schedule impacts they could have on the project. This collection of risks has the greatest potential to affect the outcome of the project and consequently is monitored most closely. For each of the noted risks, as well as for all risks on the risk register, mitigation measures have been identified and are being implemented. Progress in mitigating these risks is confirmed at monthly risk assessment meetings attended by project team management and through continuous monitoring of the Risk Management Lead.

The team has identified the following items as top risks for the project (see Appendix F for the complete Risk Table):

- BBII may be unable to develop grade crossing modifications that meet regulatory requirements prior to scheduled testing and commissioning of the system.
- A complex and diverse collection of major program elements and current Caltrain capital works projects may not be successfully integrated with existing operations and infrastructure.
- JPB may not be able to deliver work windows to contractor as dictated per contract.
- Additional work in the form of signal/pole adjustments may be required to remedy sight distance impediments arising from modifications to original design.
- Modifications to the Centralized Traffic Control (CTC) system hardware and software and Back Office Server database and systems to support DB must be completed in time for cutover and testing.
- Design changes may necessitate additional implementation of environmental mitigations not previously budgeted.
- Relocation of overhead utilities must precede installation of catenary wire and connections to TPSs. Relocation work will be performed by others and may not be completed to meet BBII’s construction schedule.
- Collaboration across multiple disciplines to develop a customized rail activation program may fail to comprehensively address the full scope of issues required to operate and maintain an electrified railroad and decommission the current diesel fleet.
- BBII may be unable to get permits required by jurisdictions for construction in a timely manner.
- UPRR does not accept catenary pole offsets from centerline of track necessitating further negotiation or relocation of poles.
• Cost and schedule of Stadler contract could increase as a result of this change in PTC system; delay of PTC may delay acceptance of EMUs.
• Cost and schedule of BBII contract could increase as a result of this change in PTC system.

Activity This Month

• Updates were made to risk descriptions, effects, and mitigations based upon weekly input from risk owners. Monthly cycle of risk updating was completed based on schedules established in the Risk Identification and Mitigation Plan.
• Risk retirement dates were updated based upon revisions to the project schedule and input from risk owners.
• Continued weekly monitoring of risk mitigation actions and publishing of the risk register.
• The Risk Management team attended Project Delivery and Systems Integration meetings to monitor developments associated with risks and to identify new risks.
• Conducted monthly Risk Assessment Committee Meeting.

Tables 11-1 and 11-2 show the risks identified for the program. Risks are categorized as top risk, upcoming risk, and all other risks. The categories are based on a rating scale composed of schedule and cost factors. Top risks are considered to have a significantly higher than average risk grade. Upcoming risks are risks for which mitigating action must be taken within 60 days. All other risks are risks not falling into other categories.

Table 11-1 Monthly Status of Risks

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Risks</td>
<td>12</td>
</tr>
<tr>
<td>Upcoming Risks</td>
<td>20</td>
</tr>
<tr>
<td>All Other Risks</td>
<td>59</td>
</tr>
</tbody>
</table>

Total Number of Active Risks = 91
Table 11-2 Risk Classification

<table>
<thead>
<tr>
<th>Number of Risks by Category &amp; Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Top Risks</td>
</tr>
<tr>
<td>Upcoming Risks</td>
</tr>
<tr>
<td>All Other Risks</td>
</tr>
</tbody>
</table>

Total Number of Active Risks = 91

Activity Next Month

- Conduct weekly monitoring of risk mitigation actions and continue publishing risk register.
- Update risk descriptions, effects, mitigations and retirement dates based on weekly monitoring.
- Participate in Quarterly Contractor Risk Management Meeting.
- Conduct Risk Assessment Committee Meeting.
12.0 ENVIRONMENTAL

12.1 Permits

The PCEP has obtained the required environmental permits from the following agencies/federal regulations: Section 106 of the National Historic Preservation Act of 1966 (NHPA), Section 7 of the Endangered Species Act (ESA), United States Army Corps of Engineers, San Francisco Bay Regional Water Quality Control Board (SFWQCB), the California Department of Fish and Wildlife, and the San Francisco Bay Conservation Development Commission.

Activity This Month

- None

Activity Next Month

- The Drainage and Stormwater Plan for Traction Power Facilities in Construction Segments 2 and 4 – Paralleling Station 7 will be submitted for review and approval by the SFWQCB in accordance with permit requirements.

12.2 Mitigation Monitoring and Reporting Program (MMRP)

The California Environmental Quality Act (CEQA) requires that a Lead Agency establish a program to monitor and report on mitigation measures that it has adopted as part of the environmental review process. The PCEP team has prepared a MMRP to ensure that mitigation measures identified in the PCEP Environmental Impact Report (EIR) are fully implemented during project implementation. PCEP will implement the mitigation measures through its own actions, those of the DB contractor and actions taken in cooperation with other agencies and entities. The status of each mitigation measure in the MMRP is included in Appendix G.

Activity This Month

- Environmental compliance monitors were present during project activities (OCS pole foundation installation, OCS pole setting, potholing for utility location, ductbank installation, tree trimming/removal, staging area development, conduit installation, concrete demolition at station platforms, installation of OCS bridge attachments, etc.) occurring in areas that required monitoring. The monitoring was conducted in accordance with measures in the MMRP in an effort to minimize potential impacts on sensitive environmental resources.
- Tree trimming and removal in Segments 2 and 3.
- Noise and vibration monitoring also occurred during project activities, and non-hazardous soil was removed from the ROW.
- Pre-construction surveys for sensitive wildlife ahead of project activities occurred to help ensure no special-status species were impacted during project activities.
- Pre-construction nesting bird surveys during the nesting bird season continued (nesting bird season is defined as February 1 through August 31).
- Environmentally Sensitive Area (ESA) staking and/or fencing occurred to delineate jurisdictional waterways and other potentially sensitive areas that should be
avoided during upcoming construction activities, and wildlife exclusion fencing installation and monitoring occurred adjacent to portions of the alignment designated for wildlife exclusion fencing.

- Protocol-level surveys for a sensitive avian species continued at previously identified potential habitat locations.
- Silt fencing installation occurred at equipment staging areas and the TPS-2 site in accordance with the project-specific Stormwater Pollution Prevention Plan.
- Archaeological exploratory trenching occurred prior to construction activities within and adjacent to culturally sensitive areas.

**Activity Next Month**

- Environmental compliance monitors will continue to monitor project activities occurring in areas that require monitoring in an effort to minimize potential impacts on sensitive environmental resources in accordance with the MMRP.
- Noise and vibration monitoring of project activities will continue to occur and non-hazardous soil will continue to be removed.
- Tree trimming and removal will continue in Segments 2 and 3 and biological surveyors will continue to conduct pre-construction surveys for sensitive wildlife species ahead of project activities.
- Silt fencing installation will continue.
- ESA staking will continue to occur to delineate jurisdictional waterways and other potentially sensitive areas that should be avoided during upcoming project activities.
- Wildlife exclusion fencing will continue to be installed prior to upcoming construction activities adjacent to potentially suitable habitat for sensitive wildlife species.
- Biological surveyors will continue surveys for nesting birds ahead of project activities occurring during the nesting bird season (February 1 through August 31) and biological survey teams will continue to conduct protocol-level surveys for sensitive avian species.
13.0 UTILITY RELOCATION

Implementation of the PCEP requires relocation or rerouting of both public and private utility lines and/or facilities. Utility relocation will require coordination with many entities, including regulatory agencies, public safety agencies, federal, state, and local government agencies, private and public utilities, and other transportation agencies and companies. This section describes the progress specific to the utility relocation process.

Activity This Month

- Work continued with all utilities on review of overhead utility line relocations based on the current design.
- Continued individual coordination with utility companies on relocation plans and schedule for incorporation with Master Program Schedule.
- Continued to work on relocation design review for PG&E and coordinate with PG&E on permitting and work planning.
- Continue to work with Verizon on relocation of aerial fiber. Relocation for the corridor is scheduled to be completed by the end of 2018.
- Continued PG&E relocations in S2WA4.
- Began PG&E relocations in Segment 4.
- Coordinated verifications for relocated PG&E facilities and identified deficiencies for correction.
- Coordinated corrections to identified deficiencies in relocations.
- Held monthly utility coordination meeting to discuss overall status and areas of potential concern from the utilities.

Activity Next Month

- Continue to coordinate with utility owners on the next steps of relocations, including support of any required design information.
- Update the relocation schedule as information becomes available from the utility owners.
- Continue review of relocation design from PG&E and coordinate with PG&E on permitting and work planning for relocations.
- Conduct monthly utility meeting with utility owners.
- Continue PG&E relocations in S2WA4 and Segment 4.
- Continue coordination and scheduling with Verizon on relocation of aerial fiber.
14.0 REAL ESTATE

The PCEP requires the acquisition of a limited amount of real estate. In general, Caltrain uses existing ROWs for the PCEP, but in certain locations, will need to acquire small portions of additional real estate to expand the ROW to accommodate installation of OCS supports (fee acquisitions or railroad easements) and associated Electrical Safety Zones (easements). There are two larger full acquisition areas required for wayside facilitates. The PCEP Real Estate team manages the acquisition of all property rights. Caltrain does not need to acquire real estate to complete the EMU procurement portion of the PCEP.

Activity This Month

- An alternate location for PS-2 was defined, appraisal maps were drafted, an appraisal was ordered and pre-acquisition discussions are ongoing with the property owner.
- Obtained Order from Possession for Chariot parcel, effective July 28, 2018.
- Received approval from FTA for one appraisal and await two administrative settlement approvals from FTA.
- Created ROW exception report as requested by FTA.

Activity Next Month

- Negotiations for all outstanding offers will continue.
- The remaining appraisals in Segment 1 will be completed, after fee acquisitions are changed to Railroad Easements.
- Design will continue on the two parcels in Segment 3 on design hold with the hope of finalizing design.
- Staff will continue to work with PG&E and Central Concrete as design progresses.
- Design will continue on the five new parcels identified.
Table 14-1 below provides a brief summary of the Real Estate acquisition overview for the project.

### Table 14-1 Real Estate Acquisition Overview

<table>
<thead>
<tr>
<th>Segment</th>
<th>No. of Parcels Needed</th>
<th>No. of Appraisals Completed</th>
<th>Offers Presented</th>
<th>Offers Accepted</th>
<th>Acquisition Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Escrow Closed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eminent Domain</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Action Filed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Parcel Possession</td>
</tr>
<tr>
<td>Segment 1</td>
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<td>2</td>
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<td>0</td>
<td>0</td>
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<td>Segment 4</td>
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<td>Additional Parcels*</td>
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<tr>
<td>Total</td>
<td>59</td>
<td>46</td>
<td>41</td>
<td>28</td>
<td>22</td>
</tr>
</tbody>
</table>

Note:

During design development, the real estate requirements may adjust to accommodate design refinements. Parcel requirements will adjust accordingly. The table in this report reflects the current property needs for the Project.

*Parcels being tracked but areas are not finalized

**PG&E covers 4 parcels
15.0 THIRD PARTY AGREEMENTS

Third-party coordination is necessary for work impacting public infrastructure, utilities, ROW acquisitions, and others. Table 15-1 below outlines the status of necessary agreements for the PCEP.

<table>
<thead>
<tr>
<th>Type</th>
<th>Agreement</th>
<th>Third-Party</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governmental Jurisdictions</td>
<td><strong>Construction &amp; Maintenance</strong> 1</td>
<td>City &amp; County of San Francisco</td>
<td>Executed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City of Brisbane</td>
<td>Executed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City of South San Francisco</td>
<td>Executed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City of San Bruno</td>
<td>Executed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City of Millbrae</td>
<td>Executed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City of Burlingame</td>
<td>Executed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City of San Mateo</td>
<td>Executed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City of Belmont</td>
<td>Executed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City of San Carlos</td>
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<td>City of Redwood City</td>
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<tr>
<td></td>
<td></td>
<td>City of Atherton</td>
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</tr>
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<td>County of San Mateo</td>
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<td>City of Menlo Park</td>
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<td>City of Palo Alto</td>
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<td>City of Mountain View</td>
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<td>City of Sunnyvale</td>
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<td>City of San Jose</td>
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<td><strong>Infrastructure</strong></td>
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<td><strong>Operating Rules</strong></td>
<td>CPUC</td>
<td>Executed</td>
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<tr>
<td>Transportation &amp; Railroad</td>
<td><strong>Construction &amp; Maintenance</strong> 2</td>
<td>Bay Area Rapid Transit</td>
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<td></td>
<td><strong>Construction &amp; Maintenance</strong> 4</td>
<td>California Dept. of Transportation (Caltrans)</td>
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<tr>
<td></td>
<td><strong>Trackage Rights</strong></td>
<td>UPRR</td>
<td>Executed</td>
</tr>
</tbody>
</table>

Notes regarding table above:

1. Agreements memorialize the parties’ consultation and cooperation, designate respective rights and obligations and ensure cooperation between the JPB and the 17 cities and three counties along the Caltrain ROW and within the PCEP limits in connection with the design and construction of the PCEP.
2. The Master Agreement and Supplemental Agreements 1, 2, 3 and 5 have been executed. Supplemental Agreement 4 has JPB approval for execution by the Executive Director.
3. Utilizing existing agreements.
16.0  GOVERNMENT AND COMMUNITY AFFAIRS

The Community Relations and Outreach team coordinates all issues with all jurisdictions, partner agencies, government organizations, businesses, labor organizations, local agencies, residents, community members, other interested parties, and the media. In addition, the team oversees the BBII’s effectiveness in implementing its Public Involvement Program. The following PCEP-related external affairs meetings took place this month:

**Presentations/Meetings**

None

**Third Party/Stakeholder Actions**

None
17.0 DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION AND LABOR STATISTICS

BBII proposed that 5.2% of the total DB contract value ($36,223,749) would be subcontracted to DBEs. As expressed in Figure 17-1 below, to date:

- $9,543,158 has been paid to DBE subcontractors.

In order to reach the 5.2% DBE participation goal, BBII has proposed the following key actions:

“In the month of July, 2018, we continue to anticipate increasing our DBE commitments to firms who we are currently negotiating pricing on proposed work or Professional Services Agreements. Also we anticipate an upcoming award of an additional contract to a DBE firm in the area of Traffic Control services.”
18.0 PROCUREMENT

Invitation for Bid (IFB)/Request for Qualifications (RFQ)/ Request for Proposals (RFP) Issued this Month:

- None

Bids, Proposals, Quotes in Response to IFB/RFQ/RFP Received this Month:

- Proposals received for RFP 18-J-P-114 – Special Inspection & Testing Services

Contract Awards this Month:

- Amtrak - RFP – 18-J-S-066 – Overhaul Services of Electric Locomotive for PCEP
- Mitsui – MOU 18-J-P-065 – Purchase of Electric Locomotives for PCEP
- Proven Management, Inc. - IFB – 18-J-C-070 – Tunnel Modifications for PCEP

Work Directive (WD)/Purchase Order (PO) Awards & Amendments this Month:

- Multiple WDs & POs issued to support the program needs

In Process IFB/RFQ/RFP/Contract Amendments:

- RFP – 18-J-P-115 – On-Call Construction Management Services for PCEP
- IFB – 18-J-C-071 – CEMOF Facility Upgrades for EMUs
- RFP – 18-J-P-072 – On-Call Safety & Security Services for PCEP

Upcoming Contract Awards:

- RFP 18-J-P-114 – Special Inspection & Testing Services

Upcoming IFB/RFQ/RFP to be Issued:

- IFB – 18-J-C-071 – CEMOF Facility Modifications for PCEP
- RFP – 18-J-P-115 – On-Call Construction Management Services for PCEP
- RFP – 18-J-P-072 – On-Call Safety & Security Services for PCEP

Existing Contracts Amendments Issued:

- None
### 19.0 TIMELINE OF MAJOR PROJECT ACCOMPLISHMENTS

Below is a timeline showing major project accomplishments from 2001 to 2017:

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>Began federal National Environmental Policy Act (NEPA) Environmental Assessment (EA) / state EIR clearance process</td>
</tr>
<tr>
<td>2002</td>
<td>Conceptual Design completed</td>
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<tr>
<td>2004</td>
<td>Draft NEPA EA/EIR</td>
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<tr>
<td>2008</td>
<td>35% design complete</td>
</tr>
<tr>
<td>2009</td>
<td>Final NEPA EA/EIR and Finding of No Significant Impact (FONSI)</td>
</tr>
<tr>
<td>2014</td>
<td>RFQ for electrification RFI for EMU</td>
</tr>
<tr>
<td>2015</td>
<td>JPB approves final CEQA EIR</td>
</tr>
<tr>
<td></td>
<td>JPB approves issuance of RFP for electrification</td>
</tr>
<tr>
<td></td>
<td>JPB approves issuance of RFP for EMU</td>
</tr>
<tr>
<td></td>
<td>Receipt of proposal for electrification</td>
</tr>
<tr>
<td></td>
<td>FTA approval of Core Capacity Project Development</td>
</tr>
<tr>
<td>2016</td>
<td>JPB approves EIR Addendum #1: PS-7</td>
</tr>
<tr>
<td></td>
<td>FTA re-evaluation of 2009 FONSI</td>
</tr>
<tr>
<td></td>
<td>Receipt of electrification best and final offers</td>
</tr>
<tr>
<td></td>
<td>Receipt of EMU proposal</td>
</tr>
<tr>
<td></td>
<td>Application for entry to engineering to FTA</td>
</tr>
<tr>
<td></td>
<td>Completed the EMU Buy America Pre-Award Audit and Certification</td>
</tr>
<tr>
<td></td>
<td>Negotiations completed with Stadler for EMU vehicles</td>
</tr>
<tr>
<td></td>
<td>Negotiations completed with BBII, the apparent best-value electrification firm</td>
</tr>
<tr>
<td></td>
<td>JPB approves contract award (LNTP) BBII</td>
</tr>
<tr>
<td></td>
<td>JPB approves contract award (LNTP) Stadler</td>
</tr>
<tr>
<td></td>
<td>FTA approval of entry into engineering for the Core Capacity Program Application for FFGA</td>
</tr>
<tr>
<td>2017</td>
<td>FTA finalized the FFGA for $647 million in Core Capacity funding, met all regulatory requirements including end of Congressional Review Period (February)</td>
</tr>
<tr>
<td></td>
<td>FTA FFGA executed, committing $647 million to the project (May)</td>
</tr>
<tr>
<td></td>
<td>JPB approves $1.98 billion budget for PCEP (June)</td>
</tr>
<tr>
<td></td>
<td>Issued NTP for EMUs to Stadler (June 1)</td>
</tr>
<tr>
<td></td>
<td>Issued NTP for electrification contract to BBII (June 19)</td>
</tr>
<tr>
<td></td>
<td>Construction began (August)</td>
</tr>
<tr>
<td></td>
<td>EMU manufacturing began (October)</td>
</tr>
<tr>
<td></td>
<td>Issued NTP for SCADA to Rockwell Collins (ARINC) (October)</td>
</tr>
<tr>
<td></td>
<td>Issued NTP for CEMOF Facility Upgrades to HNTB (November)</td>
</tr>
<tr>
<td>Date</td>
<td>Milestone</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2018</td>
<td>Completed all PG&amp;E agreements</td>
</tr>
<tr>
<td></td>
<td>JPB approves contract award to Mitsui for the purchase of electric locomotives and Amtrak for overhaul services, storage, acceptance testing, training, and shipment of locomotive to CEMOF</td>
</tr>
<tr>
<td></td>
<td>JPB approves authorization for the Executive Director to negotiate final contract award to Proven for tunnel modifications and track rehabilitation project</td>
</tr>
</tbody>
</table>
Appendix A – Acronyms
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIM</td>
<td>Advanced Information Management</td>
<td>EIR</td>
<td>Environmental Impact Report</td>
</tr>
<tr>
<td>ARINC</td>
<td>Aeronautical Radio, Inc.</td>
<td>EOR</td>
<td>Engineer of Record</td>
</tr>
<tr>
<td>BAAQMD</td>
<td>Bay Area Air Quality Management District</td>
<td>EMU</td>
<td>Electric Multiple Unit</td>
</tr>
<tr>
<td>BBII</td>
<td>Balfour Beatty Infrastructure, Inc.</td>
<td>ESA</td>
<td>Endangered Species Act</td>
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<tr>
<td>CAISO</td>
<td>California Independent System Operator</td>
<td>FAI</td>
<td>First Article Inspection</td>
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<tr>
<td>CalMod</td>
<td>Caltrain Modernization Program</td>
<td>FEIR</td>
<td>Final Environmental Impact Report</td>
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<td>Caltrans</td>
<td>California Department of Transportation</td>
<td>FNTP</td>
<td>Full Notice to Proceed</td>
</tr>
<tr>
<td>CDFW</td>
<td>California Department of Fish and Wildlife</td>
<td>FFGA</td>
<td>Full Funding Grant Agreement</td>
</tr>
<tr>
<td>CEMOF</td>
<td>Centralized Equipment Maintenance and Operations Facility</td>
<td>FONS1</td>
<td>Finding of No Significant Impact</td>
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<tr>
<td>CEQA</td>
<td>California Environmental Quality Act (State)</td>
<td>FRA</td>
<td>Federal Railroad Administration</td>
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<td>CHSRA</td>
<td>California High-Speed Rail Authority</td>
<td>FTA</td>
<td>Federal Transit Administration</td>
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<td>CIP</td>
<td>Capital Improvement Plan</td>
<td>GO</td>
<td>General Order</td>
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<tr>
<td>CPUC</td>
<td>California Public Utilities Commission</td>
<td>HSR</td>
<td>High Speed Rail</td>
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<td>CTC</td>
<td>Centralized Traffic Control</td>
<td>ICD</td>
<td>Interface Control Document</td>
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<td>Design-Build</td>
<td>IFC</td>
<td>Issued for Construction</td>
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<tr>
<td>DBB</td>
<td>Design-Bid-Build</td>
<td>ITS</td>
<td>Intelligent Transportation System</td>
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<td>DBE</td>
<td>Disadvantaged Business Enterprise</td>
<td>JPB</td>
<td>Peninsula Corridor Joint Powers Board</td>
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<tr>
<td>DEMP</td>
<td>Design, Engineering, and Management Planning</td>
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<td>Limited Notice to Proceed</td>
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<td>EA</td>
<td>Environmental Assessment</td>
<td>MMRP</td>
<td>Mitigation, Monitoring, and Reporting Program</td>
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<tr>
<td>EAC</td>
<td>Estimate at Completion</td>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<td>MPS</td>
<td>Master Program Schedule</td>
<td>ROCS</td>
<td>Rail Operations Center System</td>
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<td>------</td>
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<td>NCR</td>
<td>Non Conformance Report</td>
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<td>Right of Way</td>
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<td>RRP</td>
<td>Railroad Protective Liability</td>
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<td>NHPA</td>
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<td>Preservation Act</td>
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<td>NMFS</td>
<td>National Marine Fisheries</td>
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<td>Roadway Worker Protection</td>
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<td>District</td>
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<td>OCS</td>
<td>Overhead Contact System</td>
<td>SCADA</td>
<td>Supervisory Control and Data</td>
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<td>PCEP</td>
<td>Peninsula Corridor</td>
<td>SCC</td>
<td>Standard Cost Code</td>
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<td></td>
<td>Electrification Project</td>
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<tr>
<td>PCJPB</td>
<td>Peninsula Corridor</td>
<td>SPUR</td>
<td>San Francisco Bay Area</td>
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<td>Joint Powers Board</td>
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<td>Planning and Urban Research</td>
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<td>PG&amp;E</td>
<td>Pacific Gas and Electric</td>
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<td>Association</td>
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<tr>
<td>PHA</td>
<td>Preliminary Hazard</td>
<td>SFBDC</td>
<td>San Francisco Bay Conservation</td>
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<td>Analysis</td>
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<td>Development Commission</td>
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<td>PMOC</td>
<td>Project Management</td>
<td>SFCTA</td>
<td>San Francisco County</td>
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<td>Oversight Contractor</td>
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<td>Transportation Authority</td>
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<td>PS</td>
<td>Paralleling Station</td>
<td>SFMTA</td>
<td>San Francisco Municipal</td>
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<td>PTC</td>
<td>Positive Train Control</td>
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<td>Quality Assurance</td>
<td>SFRWQCB</td>
<td>San Francisco Regional</td>
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<td>Quality Control</td>
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<td>Quality Management Plan</td>
<td>SOGR</td>
<td>State of Good Repair</td>
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<td>Quality Management</td>
<td>SS</td>
<td>Switching Station</td>
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<td>Real Estate Acquisition</td>
<td>SSCP</td>
<td>Safety and Security</td>
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<td>Management Plan</td>
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<td>Management Plan</td>
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<td>Request for Information</td>
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<td>Site Specific Work Plan</td>
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<td>Transit America Services Inc.</td>
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<td>Request for Qualifications</td>
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<td>Acronym</td>
<td>Definition</td>
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<td>TBD</td>
<td>To Be Determined</td>
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<td>TPS</td>
<td>Traction Power Substation</td>
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<td>TVA</td>
<td>Threat and Vulnerability Assessment</td>
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<td>UPRR</td>
<td>Union Pacific Railroad</td>
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<td>USACE</td>
<td>United States Army Corp of Engineers</td>
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<td>USFWS</td>
<td>U.S. Fish and Wildlife Service</td>
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<tr>
<td>VTA</td>
<td>Santa Clara Valley Transportation Authority</td>
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Appendix B – Funding Partner Meetings
## Funding Partner Meeting Representatives

**Updated July 25, 2017**

<table>
<thead>
<tr>
<th>Agency</th>
<th>CHSRA</th>
<th>MTC</th>
<th>SFCTA/SFMTA/CCSF</th>
<th>SMCTA</th>
<th>VTA</th>
</tr>
</thead>
</table>
| **FTA Quarterly Meeting** | • Bruce Armistead  
• Boris Lipkin  
• Ben Tripousis (info only)  
• Ian Ferrier (info only)  
• Wai Siu (info only) | • Anne Richman  
• Glen Tepke | • Luis Zurinaga | • April Chan  
• Peter Skinner | • Jim Lawson |
| **Funding Partners Quarterly Meeting** | • Bruce Armistead  
• Boris Lipkin  
• Ben Tripousis  
• John Popoff | • Trish Stoops | • Luis Zurinaga | • April Chan  
• Peter Skinner | • Krishna Davey |
| **Funding Oversight (monthly)** | • Ben Tripousis  
• Kelly Doyle | • Anne Richman  
• Glen Tepke  
• Kenneth Folan | • Anna LaForte  
• Maria Lombardo  
• Luis Zurinaga  
• Monique Webster  
• Ariel Espiritu Santo | • April Chan  
• Peter Skinner | • Jim Lawson  
• Marcella Rensi  
• Michael Smith |
| **Change Management Board (monthly)** | • Bruce Armistead  
• Boris Lipkin | • Trish Stoops | • Luis Zurinaga  
• Tilly Chang (info only) | • Joe Hurley | • Krishna Davey  
• Jim Lawson  
• Carol Lawson  
• Nuria Fernandez (info only) |
| **Master Program Schedule Update (monthly)** | • Ian Ferrier  
• Wai Siu | • Trish Stoops | • Luis Zurinaga | • Joe Hurley | • Jim Lawson |
| **Risk Assessment Committee (monthly)** | • Ian Ferrier  
• Wai Siu | • Trish Stoops | • Luis Zurinaga | • Joe Hurley | • Krishna Davey |
| **PCEP Delivery Coordination Meeting (bi-weekly)** | • Ian Ferrier  
• Wai Siu | • Trish Stoops | • Luis Zurinaga | • Joe Hurley | • Krishna Davey |
| **Systems Integration Meeting (bi-weekly)** | • Ian Ferrier  
• Wai Siu | • Trish Stoops | • Luis Zurinaga | • Joe Hurley | • Krishna Davey |
Appendix C – Schedule
### Activity Name | Duration | Start | Finish
--- | --- | --- | ---
**MILESTONES**  
1. MASTER PROGRAM SCHEDULE C16.09  
2. MILESTONES  
3. Start  
4. NEPA Reevaluation Complete  
5. LNTP to Electrification Contractor  
6. LNTP to Vehicle Manufacturer  
7. FTA Issues FFAGA  
8. Segment 4 (incl. Test Track) Complete  
9. Revenue Service Date (RSD) w/ Risk Contingency  
10. Revenue Service Date (RSD) w/o Risk Contingency  
11. Revenue Service Date (RSD) w Risk Contingency (JPB Target)  
12. Revenue Service Date (RSD) w/ Risk Contingency (FFGA RSD)  
13. PLANNING / APPROVALS  
14. REAL ESTATE ACQUISITION  
15. OVERHEAD UTILITY RELOCATION  
16. SILICON VALLEY POWER (SVP)  
17. CITY OF PALO ALTO (CoPA)  
18. AT&T  
19. PG&E INFRASTRUCTURE  
20. INTERCONNECT (Supporting TPS-2)  
21. INTERIM POWER  
22. DESIGN & PERMITTING  
23. CONSTRUCTION  
24. PERMANENT POWER  
25. DESIGN & PERMITTING  
26. CONSTRUCTION  
27. SCADA  
28. PREPARE SOLE SOURCE & AWARD  
29. DESIGN  
30. IMPLEMENTATION, TEST, INSTALL & CUTOVER  
31. CEMOF  
32. DESIGN  
33. BID & AWARD  
34. CONSTRUCTION  
35. TUNNEL MODIFICATION  
36. DESIGN  
37. BID & AWARD  
38. CONSTRUCTION  
39. ELECTRIC LOCOMOTIVE  
40. BID & AWARD  
41. REHAB / TEST / TRAIN / SHIP  
42. EMU  
43. DEVELOP RFP, BID & AWARD  
44. DESIGN  
45. PROCUREMENT (Material)  
46. MANUFACTURING & TESTING  
47. TRANSIENT 1  
48. TRANSIENT 2

**Progress**  
- Critical
- Start Milestone
- Near Critical
- Finish Milestone
- Critical Milestone

**Risk Contingency**  
- Critical
- Start Milestone
- Near Critical
- Finish Milestone
- Critical Milestone

File: C16.09 072318...
Appendix D – Standard Cost Codes
## Peninsula Corridor Electrification Project Monthly Progress Report

### Appendix D – SCC D-1 June 30, 2018

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Approved Budget (A)</th>
<th>Cost This Month (B)</th>
<th>Cost To Date (C)</th>
<th>Estimate To Complete (D)</th>
<th>Estimate At Completion (E) = (C) + (D)</th>
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</thead>
<tbody>
<tr>
<td><strong>SYS</strong></td>
<td>$502,766,444</td>
<td>$4,493,197</td>
<td>$29,262,153</td>
<td>$469,566,065</td>
<td>$498,848,219</td>
</tr>
<tr>
<td><strong>10.01 Train control and signals</strong></td>
<td>$96,789,149</td>
<td>$240,485</td>
<td>$1,240,485</td>
<td>$100,180,389</td>
<td>$101,420,874</td>
</tr>
<tr>
<td><strong>10.01 Allocated Contingency</strong></td>
<td>$2,451,000</td>
<td>-</td>
<td>$2,451,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.02 Traffic signals and crossing protection</strong></td>
<td>$32,579,905</td>
<td>-</td>
<td>$32,579,905</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.02 Allocated Contingency</strong></td>
<td>$1,140,000</td>
<td>-</td>
<td>$1,140,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.03 Traction power supply: substations</strong></td>
<td>$70,671,121</td>
<td>$108,000</td>
<td>$5,311,531</td>
<td>$70,671,121</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.03 Allocated Contingency</strong></td>
<td>$28,464,560</td>
<td>-</td>
<td>$28,464,560</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.04 Traction power distribution: catenary and third rail</strong></td>
<td>$253,642,388</td>
<td>$4,144,712</td>
<td>$22,710,138</td>
<td>$256,286,537</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.04 Allocated Contingency</strong></td>
<td>$18,164,822</td>
<td>-</td>
<td>$18,164,822</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.05 Communications</strong></td>
<td>$5,455,000</td>
<td>-</td>
<td>$5,455,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.07 Central Control</strong></td>
<td>$2,090,298</td>
<td>-</td>
<td>$2,090,298</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.07 Allocated Contingency</strong></td>
<td>$18,000</td>
<td>-</td>
<td>$18,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.08 ROW, LAND, EXISTING IMPROVEMENTS</strong></td>
<td>$35,675,084</td>
<td>$37,529</td>
<td>$11,628,398</td>
<td>$24,046,687</td>
<td>$35,675,084</td>
</tr>
<tr>
<td><strong>10.09 Purchase or lease of real estate</strong></td>
<td>$25,927,074</td>
<td>$37,529</td>
<td>$11,549,962</td>
<td>$14,377,112</td>
<td>$25,927,074</td>
</tr>
<tr>
<td><strong>10.09 Allocated Contingency</strong></td>
<td>$8,748,010</td>
<td>-</td>
<td>$8,748,010</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.10 Relocation of existing households and businesses</strong></td>
<td>$1,000,000</td>
<td>-</td>
<td>$78,435</td>
<td>$921,565</td>
<td>$1,000,000</td>
</tr>
<tr>
<td><strong>10.00 VEHICLES (96)</strong></td>
<td>$625,755,807</td>
<td>$959,537</td>
<td>$111,030,899</td>
<td>$514,724,908</td>
<td>$625,755,807</td>
</tr>
<tr>
<td><strong>10.03 Commuter Rail</strong></td>
<td>$588,831,901</td>
<td>$689,537</td>
<td>$110,760,899</td>
<td>$479,007,003</td>
<td>$589,767,901</td>
</tr>
<tr>
<td><strong>10.03 Allocated Contingency</strong></td>
<td>$10,019,974</td>
<td>-</td>
<td>$10,019,974</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.06 Non-revenue vehicles</strong></td>
<td>$8,140,000</td>
<td>$270,000</td>
<td>$270,000</td>
<td>$7,870,000</td>
<td>$8,140,000</td>
</tr>
<tr>
<td><strong>10.07 Spare parts</strong></td>
<td>$18,763,931</td>
<td>-</td>
<td>$18,763,931</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.00 PROFESSIONAL SERVICES (applies to Cts. 10-50)</strong></td>
<td>$326,437,874</td>
<td>$5,962,655</td>
<td>$210,377,208</td>
<td>$121,071,022</td>
<td>$331,448,230</td>
</tr>
<tr>
<td><strong>10.01 Project Development</strong></td>
<td>$5,530,350</td>
<td>-</td>
<td>$5,530,350</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.02 Engineering (not applicable to Small Starts)</strong></td>
<td>$182,550,607</td>
<td>$4,111,995</td>
<td>$158,238,793</td>
<td>$30,370,170</td>
<td>$186,608,963</td>
</tr>
<tr>
<td><strong>10.02 Allocated Contingency</strong></td>
<td>$1,443,919</td>
<td>-</td>
<td>$1,443,919</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.03 Project Management for Design and Construction</strong></td>
<td>$72,910,901</td>
<td>$1,619,423</td>
<td>$42,100,995</td>
<td>$30,809,906</td>
<td>$72,910,901</td>
</tr>
<tr>
<td><strong>10.03 Allocated Contingency</strong></td>
<td>$9,270,000</td>
<td>-</td>
<td>$9,270,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.04 Construction Administration &amp; Management</strong></td>
<td>$23,745,294</td>
<td>$198,775</td>
<td>$3,879,509</td>
<td>$27,654,256</td>
<td>$31,443,765</td>
</tr>
<tr>
<td><strong>10.04 Allocated Contingency</strong></td>
<td>$19,469,655</td>
<td>-</td>
<td>$19,469,655</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.05 Professional Liability and other Non-Construction Insurance</strong></td>
<td>$4,305,769</td>
<td>-</td>
<td>$2,555,769</td>
<td>$1,750,000</td>
<td>$4,305,769</td>
</tr>
<tr>
<td><strong>10.06 Legal; Permits; Review Fees by other agencies, cities, etc.</strong></td>
<td>$6,341,599</td>
<td>$34,462</td>
<td>$3,309,076</td>
<td>$3,032,523</td>
<td>$6,341,599</td>
</tr>
<tr>
<td><strong>10.06 Allocated Contingency</strong></td>
<td>$556,000</td>
<td>-</td>
<td>$556,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.07 Surveys, Testing, investigation, Inspection</strong></td>
<td>$3,287,824</td>
<td>-</td>
<td>$12,887</td>
<td>$3,290,712</td>
<td>$3,287,824</td>
</tr>
<tr>
<td><strong>10.08 Start up</strong></td>
<td>$1,797,957</td>
<td>-</td>
<td>$1,797,957</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>10.08 Allocated Contingency</strong></td>
<td>$681,000</td>
<td>-</td>
<td>$681,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total UNALLOCATED CONTINGENCY</strong></td>
<td>$1,777,332,899</td>
<td>$14,304,592</td>
<td>$436,337,198</td>
<td>$1,356,271,249</td>
<td>$1,792,608,447</td>
</tr>
<tr>
<td><strong>Total (98)</strong></td>
<td>$1,946,339,397</td>
<td>-</td>
<td>-</td>
<td>$1,356,271,249</td>
<td>$1,792,608,447</td>
</tr>
<tr>
<td><strong>Total (100)</strong></td>
<td>$1,930,670,934</td>
<td>$14,641,278</td>
<td>$439,585,546</td>
<td>$1,490,812,228</td>
<td>$1,930,670,934</td>
</tr>
</tbody>
</table>
### Change Order Logs

#### Electrification Contract

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
<th>Remaining Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/31/17</td>
<td>BBI-053-CCO-001</td>
<td>Track Access Delays Q4 2016</td>
<td>$85,472</td>
<td>0.25%</td>
<td>$34,745,056</td>
</tr>
<tr>
<td>02/28/18</td>
<td>BBI-053-CCO-003</td>
<td>Deletion of Signal Cable Meggering (Testing)</td>
<td>($800,000)</td>
<td>(2.30%)</td>
<td>$35,545,056</td>
</tr>
<tr>
<td>02/21/18</td>
<td>BBI-053-CCO-004</td>
<td>Field Order for Differing Site Condition Work Performed on 6/19/17</td>
<td>$59,965</td>
<td>0.17%</td>
<td>$35,485,091</td>
</tr>
<tr>
<td>03/12/18</td>
<td>BBI-053-CCO-006</td>
<td>Track Access Delays for Calendar Quarter 1 2017</td>
<td>$288,741</td>
<td>0.83%</td>
<td>$35,196,350</td>
</tr>
<tr>
<td>04/24/18</td>
<td>BBI-053-CCO-002</td>
<td>Time Impact 01 Associated with Delayed NTP</td>
<td>$9,702,667</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>04/24/18</td>
<td>BBI-053-CCO-008</td>
<td>2016 Incentives (Safety, Quality, and Public Outreach.)</td>
<td>$750,000</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>05/31/18</td>
<td>BBI-053-CCO-009</td>
<td>16th St. Grade Crossing Work Removal from BBII Contract</td>
<td>($685,198)</td>
<td>(1.97%)</td>
<td>$35,881,547</td>
</tr>
<tr>
<td>05/31/18</td>
<td>BBI-053-CCO-012</td>
<td>2017 Incentives (Safety, Quality, and Public Outreach.)</td>
<td>$1,025,000</td>
<td>0.00%</td>
<td>-</td>
</tr>
<tr>
<td>06/25/18</td>
<td>BBI-053-CCO-010</td>
<td>Pothole Change Of Shift</td>
<td>$300,000</td>
<td>0.86%</td>
<td>$35,581,547</td>
</tr>
<tr>
<td>06/25/18</td>
<td>BBI-053-CCO-013</td>
<td>Field Order for Signal Cable Relocation (FO# 31)</td>
<td>$95,892</td>
<td>0.28%</td>
<td>$35,485,655</td>
</tr>
<tr>
<td>06/25/18</td>
<td>BBI-053-CCO-015</td>
<td>TASI Pilot Transportation 2017</td>
<td>$67,345</td>
<td>0.19%</td>
<td>$35,418,310</td>
</tr>
<tr>
<td>06/26/18</td>
<td>BBI-053-CCO-005</td>
<td>Field Orders for Signal Cable Relocation (FO#s 26, 30)</td>
<td>$191,836</td>
<td>0.55%</td>
<td>$35,226,474</td>
</tr>
<tr>
<td>06/28/18</td>
<td>BBI-053-CCO-014</td>
<td>Field Orders for Signal Cable Relocation (FO-36 &amp; FO-38)</td>
<td>$145,694</td>
<td>0.42%</td>
<td>$35,080,780</td>
</tr>
<tr>
<td>06/29/18</td>
<td>BBI-053-CCO-007</td>
<td>Track Access Delays for Calendar Quarter 2 2017</td>
<td>$297,512</td>
<td>0.85%</td>
<td>$34,783,268</td>
</tr>
<tr>
<td>06/29/18</td>
<td>BBI-053-CCO-011</td>
<td>Field Orders for Differing Site Condition (FO#s Partial 07A, 08-14)</td>
<td>$181,013</td>
<td>0.52%</td>
<td>$34,602,255</td>
</tr>
<tr>
<td>06/29/18</td>
<td>BBI-053-CCO-017</td>
<td>Field Order for NorCal Utility Potholing (FO# 27)</td>
<td>$93,073</td>
<td>0.27%</td>
<td>$34,509,182</td>
</tr>
<tr>
<td>06/29/18</td>
<td>BBI-053-CCO-018</td>
<td>Field Order for NorCal Utility Potholing (FO# 29)</td>
<td>$76,197</td>
<td>0.22%</td>
<td>$34,432,985</td>
</tr>
<tr>
<td>06/29/18</td>
<td>BBI-053-CCO-020</td>
<td>Field Orders for Differing Site Condition (FO#s 15-19)</td>
<td>$118,364</td>
<td>0.34%</td>
<td>$34,314,621</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$11,993,573</strong></td>
<td></td>
<td><strong>$1,48%</strong></td>
<td></td>
<td><strong>$35,314,621</strong></td>
</tr>
</tbody>
</table>

Notes:
1. When the threshold of 75% is reached, staff may return to the Board to request additional authority.
2. Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.

#### EMU Contract

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
<th>Remaining Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/22/17</td>
<td>STA-056-CCO 001</td>
<td>Contract General Specification and Special Provision Clean-up</td>
<td>$0</td>
<td>0.00%</td>
<td>$27,489,973</td>
</tr>
<tr>
<td>10/27/17</td>
<td>STA-056-CCO 002</td>
<td>Prototype Seats and Special Colors</td>
<td>$55,000</td>
<td>0.20%</td>
<td>$27,489,973</td>
</tr>
<tr>
<td>11/02/17</td>
<td>STA-056-CCO 003</td>
<td>Car Level Water Tightness Test</td>
<td>$0</td>
<td>0.00%</td>
<td>$27,489,973</td>
</tr>
<tr>
<td>12/05/17</td>
<td>STA-056-CCO 004</td>
<td>Onboard Wheelchair Lift 800 Pound Capacity Provisions</td>
<td>$848,000</td>
<td>3.08%</td>
<td>$26,641,973</td>
</tr>
<tr>
<td>11/03/17</td>
<td>STA-056-CCO 005</td>
<td>Design Progression (multiple)</td>
<td>$0</td>
<td>0.00%</td>
<td>$26,641,973</td>
</tr>
<tr>
<td>12/12/17</td>
<td>STA-056-CCO 006</td>
<td>Prototype Seats and Special Colors</td>
<td>($27,500)</td>
<td>(0.10%)</td>
<td>$26,669,473</td>
</tr>
<tr>
<td>01/17/18</td>
<td>STA-056-CCO 007</td>
<td>Multi-Color Destination Signs</td>
<td>$130,760</td>
<td>0.47%</td>
<td>$26,538,713</td>
</tr>
</tbody>
</table>
### Peninsula Corridor Electrification Project
### Monthly Progress Report

#### Appendix E – Change Order Logs E-2 June 30, 2018

**Change Order Authority (5% of Stadler Contract)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
<th>Remaining Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/09/2018</td>
<td>STA-056-CCO-008</td>
<td>Adjustment to Delivery and LDs due to delayed FNTP</td>
<td>$490,000</td>
<td>1.78%</td>
<td>$26,048,713</td>
</tr>
<tr>
<td>02/12/2018</td>
<td>STA-056-CCO-009</td>
<td>Ship Cab Mock-up to Caltrain</td>
<td>$53,400</td>
<td>0.19%</td>
<td>$25,995,313</td>
</tr>
<tr>
<td>04/17/2018</td>
<td>STA-056-CCO-010</td>
<td>Onboard Wheelchair Lift Locations ($1,885,050) (6.84%)</td>
<td>($1,885,050)</td>
<td>(6.84%)</td>
<td>$27,880,363</td>
</tr>
<tr>
<td>04/17/2018</td>
<td>STA-056-CCO-011</td>
<td>Multiple Change Group 3 and Scale Models</td>
<td>$0</td>
<td>0.00%</td>
<td></td>
</tr>
</tbody>
</table>

**Total**

<table>
<thead>
<tr>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
<th>Remaining Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>($335,390)</td>
<td>(1.22%)</td>
<td>$27,880,363</td>
</tr>
</tbody>
</table>

**Notes:**

1. When the threshold of 75% is reached, staff may return to the Board to request additional authority.
2. Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.

---

**SCADA Contract**

**Change Order Authority (15% of ARINC Contract)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Change Number</th>
<th>Description</th>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
<th>Remaining Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>None to date</td>
<td></td>
<td>None to date</td>
<td>$0</td>
<td>0.00%</td>
<td>$517,038</td>
</tr>
</tbody>
</table>

**Total**

<table>
<thead>
<tr>
<th>CCO Amount</th>
<th>Change Order Authority Usage</th>
<th>Remaining Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>0.00%</td>
<td>$517,038</td>
</tr>
</tbody>
</table>

**Notes:**

1. When the threshold of 75% is reached, staff may return to the Board to request additional authority.
2. Change approved by the Board of Directors – not counted against the Executive Director’s Change Order Authority.
Appendix F – Risk Table
### Listing of PCEP Risks and Effects in Order of Severity

<table>
<thead>
<tr>
<th>ID</th>
<th>RISK DESCRIPTION</th>
<th>EFFECT(S)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>279</td>
<td>BBII may be unable to develop grade crossing modifications that meet regulatory requirements prior to scheduled testing and commissioning of the system.</td>
<td>Crossing operations will not be acceptable to CPUC and FRA and therefore delay commissioning.</td>
<td></td>
</tr>
<tr>
<td>223</td>
<td>A complex and diverse collection of major program elements and current Caltrain capital works projects may not be successfully integrated with existing operations and infrastructure.</td>
<td>Proposed changes resulting from electrification may not be fully and properly integrated into existing system. Rework resulting in cost increases and schedule delays</td>
<td></td>
</tr>
<tr>
<td>242</td>
<td>JPB may not be able to deliver work windows to contractor as dictated per contract.</td>
<td>Delays to construction schedule and associated delay claims.</td>
<td></td>
</tr>
<tr>
<td>281</td>
<td>Additional work in the form of signal/pole adjustments may be required to remedy sight distance impediments arising from modifications to original design.</td>
<td>Add repeater signals, design duct bank would result in increased design and construction costs.</td>
<td></td>
</tr>
<tr>
<td>257</td>
<td>Modifications to the CTC system hardware and software and Back Office Server database and systems to support DB must be completed in time for cutover and testing.</td>
<td>Failure to follow the DB Management process will result in major interruption to train service and overall capital projects delay.</td>
<td></td>
</tr>
<tr>
<td>287</td>
<td>Design changes may necessitate additional implementation of environmental mitigations not previously budgeted.</td>
<td>Increased cost for environmental measures and delays to construct and overall delay in construction schedule</td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>Relocation of overhead utilities must precede installation of catenary wire and connections to TPSs. Relocation work will be performed by others and may not be completed to meet BBII’s construction schedule.</td>
<td>Delay in progress of catenary installation resulting in claims and schedule delay</td>
<td></td>
</tr>
<tr>
<td>263</td>
<td>Collaboration across multiple disciplines to develop a customized rail activation program may fail to comprehensively address the full scope of issues required to operate and maintain an electrified railroad and decommission the current diesel fleet.</td>
<td>Delay in testing of EMUs. Delay in Revenue Service Date. Additional costs for Stadler and BBII due to overall schedule delays.</td>
<td></td>
</tr>
<tr>
<td>276</td>
<td>BBII may be unable to get permits required by jurisdictions for construction in a timely manner.</td>
<td>Additional cost and time resulting from delays to construction</td>
<td></td>
</tr>
<tr>
<td>294</td>
<td>UP does not accept catenary pole offsets from centerline of track necessitating further negotiation or relocation of poles</td>
<td>Delay to construction and additional costs for redesign and ROW acquisition.</td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>RISK DESCRIPTION</td>
<td>EFFECT(S)</td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| 297| Cost and schedule of Stadler contract could increase as a result of this change in PTC system  
Delay of PTC may delay acceptance of EMUs. | 1) Full integrated testing between EMU and wayside cannot be conducted without PTC in place.  
2) Delay in EMU final design for PTC and potential PTC interfaces. Need to finalize braking system sequence priority. |
| 298| Cost and schedule of BBII contract could increase as a result of this change in PTC system | Balfour contract: changes in datafiles could affect what Balfour provides; could delay timing for testing; could change books that FRA had to review. Delay in testing and increased costs |
| 209| TASI may be unable to deliver sufficient resources to support construction and testing for the electrification contract. | • Testing delayed. Additional construction costs.  
• Change order for extended vehicle acceptance. |
| 241| Balfour Beatty needs to build TP2 and Interconnection in time for PG&E to supply power in time to support testing  
• Date is December 2018 to support contractor’s schedule  
• Interim power was mitigation to providing permanent power  
Risk of PG&E delay in interim power availability. | Delay in testing and increased costs |
| 247| Timely resolution of 3rd party design review comments to achieve timely approvals | Delay to completion of design and associated additional labor costs. |
| 267| Additional property acquisition is necessitated by design changes. | New project costs and delays to schedule. |
| 268| Potential that vehicles will not receive timely notification of compliance from FRA. Most significant issues include:  
• High Level Doors in lieu of windows as emergency exits  
• Compliance with acceptable alternate crash management standards | Delays to completion of construction and additional cost to changes in design. |
<table>
<thead>
<tr>
<th>ID</th>
<th>RISK DESCRIPTION</th>
<th>EFFECT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>240</td>
<td>Property not acquired in time for contractor to do work. Property Acquisition not complete per contractor availability date ➞ Fee ➞ Easement ➞ Contract stipulates that if parcels are not available by contract date, there is only a delay if parcels are not available by the time contractor completes the Segment</td>
<td>• Potential delays in construction schedule</td>
</tr>
<tr>
<td>295</td>
<td>UP does not accept catenary pole offsets from centerline of track necessitating further negotiation or relocation of poles</td>
<td>Delay to construction and additional costs for redesign and ROW acquisition.</td>
</tr>
<tr>
<td>64</td>
<td>Potential need for additional right-of-way beyond that initially envisioned and/or relocation of underground utilities by others, which could result in delays to the schedule and associated costs.</td>
<td>Delay in installation of catenary poles resulting in claims and schedule delay</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CBOSS FOC conflicts additional costs and delays include:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Potholing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Design</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. OCS materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Encasement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. ROW</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JPB Signal Cable conflicts additional costs and delays include:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Trenching</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Splicing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Cable</td>
</tr>
<tr>
<td>115</td>
<td>Other capital improvement program projects compete with PCEP for track access allocation and requires design coordination (design, coordination, integration).</td>
<td>Schedule delay as resources are allocated elsewhere, won’t get track time, sequencing requirements may delay PCEP construction, track access requirements must be coordinated.</td>
</tr>
<tr>
<td>136</td>
<td>UP may not complete review of BBI design in accordance with agreed deadlines (90 days in Segment 4, 60 days in other segments).</td>
<td>Delays to completion of design and claims for delay.</td>
</tr>
<tr>
<td>174</td>
<td>Installation of electrification infrastructure may require the relocation of signals, which would affect the block design.</td>
<td>Cost and schedule impacts resulting from the design, construction, and testing of modified signal system and review of revised block design.</td>
</tr>
<tr>
<td>260</td>
<td>EMU Contractor’s facility is not completed before needed for vehicle assembly.</td>
<td>Delay in commencement of assembly of EMUs delaying final delivery and system-wide testing.</td>
</tr>
<tr>
<td>ID</td>
<td>RISK DESCRIPTION</td>
<td>EFFECT(S)</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>261</td>
<td>EMU electromechanical emissions and track circuit susceptibility are incompatible.</td>
<td>Changes on the EMU and/or signal system require additional design and installation time and expense.</td>
</tr>
<tr>
<td>262</td>
<td>Configuration changes from other capital projects could necessitate changes to electrification design.</td>
<td>Potential increase or decrease in final construction cost for electrification; additional cost for rework of completed construction; delays to overall project schedule due to inefficiencies.</td>
</tr>
<tr>
<td>277</td>
<td>Inadequate D-B labor to support multiple work segments</td>
<td>Additional cost and time</td>
</tr>
<tr>
<td>280</td>
<td>Field equipment installed by D/B contractor may not communicate with the Central Control Facility (CCF), the Back-Up Central Control Facility (BCCF) through SCADA and function as designed.</td>
<td>Could require the acquisition and installation of additional equipment at BCCF and CCF. Could therefore require additional cost and time</td>
</tr>
<tr>
<td>285</td>
<td>Potential for inflation, (except with respect to Maintenance Option) to increase contractor costs.</td>
<td>Higher cost</td>
</tr>
<tr>
<td>286</td>
<td>Potential for wage escalation, (except for Maintenance Option) to increase contractor costs.</td>
<td>Higher cost</td>
</tr>
<tr>
<td>296</td>
<td>BBII needs to complete interconnection and traction power substations be sufficiently complete to accept interim power</td>
<td>Delay in testing and increased costs</td>
</tr>
</tbody>
</table>
| 56  | Lack of O&M support for testing and/or vehicle operations. Includes operational readiness and personnel hired and scheduled to be trained. | • Testing delayed.  
• Change order for extended vehicle acceptance.                                                                                                                                                                                                                                                                                                                                 |
| 88  | Construction safety program fails to sufficiently maintain safe performance.        | Work stoppages due to safety incidents resulting in schedule delay and additional labor costs.                                                                                                                                                                                                                                                                                                             |
| 161 | Unanticipated costs to provide alternate service (bus bridges, etc.) during rail service disruptions. | Cost increase.                                                                                                                                                                                                                                                                                                                                 |
| 179 | Risk that municipal reviews take additional time due to absence of municipal agreement. | Possible delay to:  
(1) to design review;  
(2) permit issuance;  
(3) construction within local jurisdiction right-of-way                                                                                                                                                                                                                                                                 |

Appendix F – Risk Table  
F-4  
June 30, 2018
<table>
<thead>
<tr>
<th>ID</th>
<th>RISK DESCRIPTION</th>
<th>EFFECT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>183</td>
<td>Installation and design of new duct bank takes longer because of UP coordination</td>
<td><strong>Schedule</strong> - Delay. May need to use condemnation authority to acquire easement.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Cost</strong> - Additional cost for PG&amp;E to make connections increasing project costs</td>
</tr>
<tr>
<td>250</td>
<td>Potential for municipalities to request betterments as part of the electrification project.</td>
<td>Delay to project schedule in negotiating betterments as part of the construction within municipalities and associated increased cost to the project as no betterments were included in the project budget.</td>
</tr>
</tbody>
</table>
| 259 | Work on 25th Avenue Grade Separation Project could delay Balfour construction schedule. | • Increased cost for BBI as catenary construction in this section was anticipated to be constructed under the 25th Avenue Grade Separation Project.  
• Potential delays in construction schedule  
• Risk is delay to BBI |
| 270 | OCS poles or structures as designed by Contractor fall outside of JPB row         | Additional ROW Take, additional cost and time                                                                                                                                                             |
| 82  | Unexpected restrictions could affect construction progress:                      | • Reduced production rates.  
• Delay                                                                                                                                                                                                     |
|     | <> night work  
<> noise  
<> local roads  
<> local ordinances |                                                                                                                                                                                                              |
| 119 | Coordination of electrification design with Operations                          | • Qualified individuals may not be available.  
• Training may take longer than anticipated.                                                                                                                                                           |
<p>| 253 | Risk that existing conditions of Caltrans-owned bridges will not support bridge barriers. The existing bridge conditions and structural systems are unknown and may not support mounting new work | Delays to issuance of permit for construction while negotiating and executing an operation and maintenance agreement for equipment installed on bridges; existing bridge deficiencies could result in additional costs to PCEP. |
|     | Design will need to prove new barriers will not impact existing capacity of the bridges prior to Caltran's approval for construction. Without approval of design and issuance of permit, there is risk to the schedule for the work and also budget if during design existing bridge will require some upgrades due to the introduction of new attachments. |                                                                                                                                                                                                     |
| 78  | Need for unanticipated, additional ROW for new signal enclosures.                | Delay while procuring ROW and additional ROW costs.                                                                                                                                                     |</p>
<table>
<thead>
<tr>
<th>ID</th>
<th>RISK DESCRIPTION</th>
<th>EFFECT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>154</td>
<td>Potential for encountering unidentified or unknown private crossings along the corridor.</td>
<td>Additional cost and time to acquire ROW by condemnation</td>
</tr>
<tr>
<td></td>
<td>Could impose unanticipated rights or requirements on the design.</td>
<td></td>
</tr>
<tr>
<td>171</td>
<td>Electrification facilities could be damaged during testing.</td>
<td>Delay in commencing electrified operations.</td>
</tr>
<tr>
<td>195</td>
<td>Introduction of electrified train service will require training of first responders in working in and around the rail corridor. The new vehicles will be considerably quieter than the existing fleet and the presence of high voltage power lines will require new procedures for emergency response. A new training program will need to be developed and disseminated for: • Fire, police, and first responders • Local communities • Schools</td>
<td>Safety hazards resulting in incidents that delay construction and increase labor cost. Delays in RSD until training is completed as requirement of safety certification process.</td>
</tr>
<tr>
<td>251</td>
<td>Subcontractor and supplier performance to meet aggressive schedule &lt;&gt;Potential issue meeting Buy America requirements</td>
<td>Delay to production schedule resulting in increased soft costs and overall project schedule delay.</td>
</tr>
<tr>
<td>265</td>
<td>PG&amp;E must deliver interim power in time for Balfour testing</td>
<td>Delay in testing and increased costs</td>
</tr>
<tr>
<td>271</td>
<td>Need for additional construction easements beyond that which has been provided for Contractor proposed access and staging</td>
<td>Additional cost and time</td>
</tr>
<tr>
<td>272</td>
<td>Final design based upon actual Geotech conditions</td>
<td>Could require changes</td>
</tr>
<tr>
<td>288</td>
<td>Independent checker finds errors in signal design and technical submittals</td>
<td>Additional cost and time</td>
</tr>
<tr>
<td>289</td>
<td>Coordination and delivery of permanent power for power drops for everything except traction power substations along alignment</td>
<td>Can't test resulting in delays to schedule and associated additional project costs.</td>
</tr>
<tr>
<td>291</td>
<td>Order/manufacturer of long lead items prior to 100% IFC design document that proves to be incorrect</td>
<td>Design change and/or delays</td>
</tr>
<tr>
<td>292</td>
<td>Potential that UPS will not fit in the spaces allotted to communications work within the buildings.</td>
<td>Requisite backup capacity units under design criteria could result in the need for larger unit than originally planned resulting in design and fabrication changes and associated schedule delays and costs.</td>
</tr>
<tr>
<td>ID</td>
<td>RISK DESCRIPTION</td>
<td>EFFECT(S)</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>19</td>
<td>Potential for vehicle delivery to be hampered by international conflict; market disruption; labor strikes at production facility.</td>
<td>Delay in production of vehicle with associated cost implications.</td>
</tr>
<tr>
<td>42</td>
<td>Full complement of EMUs not available upon initiation of electrified revenue service</td>
<td>Late delivery impacts revenue service date.</td>
</tr>
<tr>
<td>101</td>
<td>PG&amp;E may not be able to deliver permanent power for the project within the existing budget and in accordance with the project schedule</td>
<td>Additional project costs; potential delay to revenue service date</td>
</tr>
<tr>
<td>150</td>
<td>Number of OCS pole installation is significant. Any breakdown in sequencing of operations or coordination of multiple crews will have a substantial effect on the project.</td>
<td>Delay.</td>
</tr>
<tr>
<td>245</td>
<td>Failure of BBI to submit quality design and technical submittals in accordance with contract requirements • $3-$5M/month burn rate for Owner’s team during peak</td>
<td>Delays to project schedule and additional costs for preparation and review of submittals.</td>
</tr>
<tr>
<td>252</td>
<td>Failure of BBI to order/manufacture long lead items prior to 100% IFC design document approval by JPB</td>
<td>Delays to project schedule and additional cost for contractor and JPB staff time.</td>
</tr>
<tr>
<td>266</td>
<td>Relocation of Verizon must precede installation of foundations and connections to TPSs. Relocation work will be performed by others and may not be completed to meet BBII’s construction schedule.</td>
<td>Delay in progress of catenary installation resulting in claims and schedule delay</td>
</tr>
<tr>
<td>10</td>
<td>Delays in parts supply chain result in late completion of vehicles.</td>
<td>• Delay in obtaining parts / components.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cost increases. (See Owner for allocation of costs)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Schedule increase - 3 months (See Owner for allocation of damages associated with this Risk)</td>
</tr>
<tr>
<td>12</td>
<td>Potential for electromagnetic interference (EMI) to private facilities with sensitive electronic equipment caused by vehicles.</td>
<td>• Increased cost due to mitigation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Potential delay due to public protests or environmental challenge.</td>
</tr>
<tr>
<td>50</td>
<td>Leadership and / or key personnel changes with car builder results in delays to completion of design and manufacture of vehicles.</td>
<td>• Cost Increase</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Schedule Increase – not supported by a TIA</td>
</tr>
<tr>
<td>51</td>
<td>Damage during delivery of first six EMUs.</td>
<td>Schedule delay</td>
</tr>
<tr>
<td>54</td>
<td>Infrastructure not ready for vehicles (OCS, TPS, Commissioning site / facility).</td>
<td>Increases cost if done off property</td>
</tr>
<tr>
<td>ID</td>
<td>RISK DESCRIPTION</td>
<td>EFFECT(S)</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 69  | Potential need for additional construction easements. Especially for access and laydown areas. Contractor could claim project is not constructible and needs more easements after award. | Increased cost  
Delay |
| 87  | Unanticipated HazMat or contaminated hot spots encountered during foundation excavations for poles, TPSS, work at the yards. | Increased cost for clean-up and handling of materials and delay to schedule due to HazMat procedures. |
| 93  | Unanticipated subsurface conditions affecting pole or TPSS installation.       |  
- Delay taking actions to remedy conditions or relocate foundations.  
- Increased cost for design and construction of remediation |
| 106 | Potential that DB contractor will have insufficient field resources (personnel or equipment) to maintain aggressive schedule.  
Multiple segments will need to be under design simultaneously.  
Labor pool issue. 32 qualified linemen will be needed. Potential there is not enough available. Big storm damage anywhere in US will draw from the pool to make line repairs.  
Possible shortages with other specialty crafts as well. | Delay  |
| 146 | Wayside signal / pole adjustments to avoid sighting distance problems.        | Change order.                                                            |
| 148 | Potential impact to advancing construction within the vicinity of any cultural finds that are excavated. | Minor disruption of the construction work |
| 151 | Public could raise negative concerns regarding wheel/rail noise.              | Increased cost to mitigate:  
<> grind rails  
<> reprofile wheels  
<> sound walls |
<table>
<thead>
<tr>
<th>ID</th>
<th>RISK DESCRIPTION</th>
<th>EFFECT(S)</th>
</tr>
</thead>
</table>
| 182 | Compliance with Buy America requirements for 3rd party utility relocations.  
<>Utility relocations covered under existing Caltrain agreements that require utilities to move that will not have effect on project cost - will not be Buy America  
<>Installation of new equipment inside PG&E substations that will provide all PG&E customers, about 1/6 of that provides power to our system - is upgrade that benefits all customers subject to Buy America requirements, is it 1/6th, or 100%  
<>Risk is substation not relocations  
<>Substation equipment is available domestically, has 6 month longer lead time and increased cost of 20%                                                                                             | • Increased cost  
• Delay                                                                                                                                  |
| 189 | EMUs will need I-ITCS equipment that is compatible with wayside equipment. Same supplier thereby reducing the risk.                                                                                                                                                                                                                       | Could drive up price because the car builder may not be a priority customer.                          |
| 192 | Environmental compliance during construction. Failure to meet the commitments contained within the PCEP EA, FEIR and permit conditions                                                                                       | • Delay  
• Cost increase                                                                                                                                    |
| 213 | Potential that cost of relocation exceeds previously budgeted cost for property acquisition.                                                                                                                                                                                  | Increase in project costs and potential delay to secure funding.                                       |
| 237 | JPB needs and agreement with each city in which catenary will be strung over an existing grade crossing (17 in all) under GO 88 (grade crossings). These agreements must be executed subsequent to installing overhead catenary. JPB is preparing a response to CPUC while working with the cities. Delays in reaching agreement could have impacts on schedule and budget. | Not completing the grade crossing diagnostics and getting agreement from the cities on the results can result in delays to necessary approvals for the project and revenue service. |
| 248 | 3rd party coordination  
<>Jurisdictions, Utilities, UP, Contractors  
<>D/B needs to provide timely information to facilitate 3rd party coordination  
<>Risk is for construction                                                                                                                                                                                                 | Delays in approvals resulting in project schedule delays and associated costs.                      |
<p>| 249 | Coordination and delivery of permanent power for power drops along alignment                                                                                                                                                                                                         | Delays in completion of construction and testing with associated increase in costs.                    |
| 254 | Potential that bridge clearance data are inaccurate and that clearances are not sufficient for installation of catenary.                                                                                                                                                     | Results in additional design and construction to create sufficient clearance.                           |</p>
<table>
<thead>
<tr>
<th>ID</th>
<th>RISK DESCRIPTION</th>
<th>EFFECT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>269</td>
<td>Potholing unearths the fact that pole locations conflict with utilities. OCS pole or structure locations as designed by Contractor conflict with utilities where conflict could have been avoided by allowable final design adjustments.</td>
<td>Additional cost and time</td>
</tr>
<tr>
<td>273</td>
<td>Contractor generates new hazardous materials, necessitates proper removal and disposal of existing hazardous materials identified in the Contract for D-B remediation.</td>
<td>Delay to construction while removing and disposing of hazardous materials resulting in schedule delay, increased construction costs, and schedule delay costs.</td>
</tr>
<tr>
<td>274</td>
<td>JPB as-built dwgs and existing infrastructure to be used as basis of final design and construction is not correct</td>
<td>Additional cleanup of as-builts after PCEP construction</td>
</tr>
<tr>
<td>275</td>
<td>DB fails to verify as-built dwgs and existing infrastructure</td>
<td>Additional cleanup of as-builts after PCEP construction</td>
</tr>
<tr>
<td>278</td>
<td>Failure of D/B contractor and subcontractors and suppliers to meet Buy America requirements</td>
<td>Delays while acceptable materials are procured and additional costs for delays and purchase of duplicative equipment.</td>
</tr>
<tr>
<td>282</td>
<td>Failure to maintain dynamic envelope and existing track clearances consistent with requirements.</td>
<td>Redesign entailing cost and schedule impacts.</td>
</tr>
<tr>
<td>283</td>
<td>Fluctuation in foreign currency v US dollar</td>
<td>Increase in costs</td>
</tr>
<tr>
<td>284</td>
<td>Compliance with project labor agreement could result in inefficiencies in staffing of construction.</td>
<td>Increase in labor costs and less efficient construction resulting in schedule delays.</td>
</tr>
<tr>
<td>290</td>
<td>Delays in agreement and acceptance of initial VVSC requirements database.</td>
<td>Delay to design acceptance</td>
</tr>
<tr>
<td>293</td>
<td>Readiness of 115kV interconnect for temporary power to support testing</td>
<td>Delay in testing</td>
</tr>
<tr>
<td>302</td>
<td>May not have a 110-mph electrified section of track that will be ready for testing when needed.</td>
<td>Requires negotiation with Stadler as to what is included in current contract; Delay in testing and increased costs Delays and associated claims.</td>
</tr>
<tr>
<td>303</td>
<td>Delays in pitholing will prolong overall project.</td>
<td>Delay in pitholing can lead to delays in readiness of the holes for foundation installation. This can lead to overall delay and additional cost due to the delay.</td>
</tr>
<tr>
<td>304</td>
<td>Plan to locate bikes in front of emergency window Exits may not be permitted by FRA.</td>
<td>If bikes cannot be placed in front of emergency windows and the ratio of 1 bike per 8 passenger seats is to be maintained, then the interior design of the cars would need to be altered to distribute bikes across multiple cars rather than solely in bicycle cars. Such redesign would result in additional costs and schedule delays.</td>
</tr>
</tbody>
</table>
Appendix G – MMRP Status Log
Mitigation Monitoring and Reporting

<table>
<thead>
<tr>
<th>Mitigation Measure</th>
<th>Mitigation Timing</th>
<th>Status</th>
<th>Status Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AES-2a: Minimize OCS</strong> construction activity on residential and park areas outside the Caltrain ROW.</td>
<td>Pre-Construction: X</td>
<td>Ongoing</td>
<td>The OCS proposed construction schedule has been provided to the JPB. OCS construction began the week of October 2, 2017. The D-B has used the potholing process to assist in locating conflicts in the 35% design and attempting to relocate OCS pole locations within the ROW, thereby avoiding parks and residential areas.</td>
</tr>
<tr>
<td><strong>AES-2b: Aesthetic treatments for OCS poles, TPFs in sensitive visual locations, and Overbridge Protection Barriers.</strong></td>
<td>Pre-Construction: X</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure have been implemented as described, and coordination with the specific jurisdictions regarding pole colors and design, TPFs, and Overbridge Protection Barriers, is ongoing.</td>
</tr>
<tr>
<td><strong>AES-4a: Minimize spillover light during nighttime construction.</strong></td>
<td>Pre-Construction: X</td>
<td>Ongoing</td>
<td>OCS construction began the week of October 2, 2017. The BBI community relations lead has notified nearby residents of upcoming construction. During construction, lighting is faced inward, towards the railroad tracks, and any complaints will be documented and addressed by the BBI community relations lead.</td>
</tr>
<tr>
<td><strong>AES-4b: Minimize light spillover at TPFs.</strong></td>
<td>Pre-Construction: X</td>
<td>Upcoming</td>
<td>The design requirements indicated in the measure are being used in the design process of the TPFs.</td>
</tr>
<tr>
<td><strong>AQ-2a: Implement BAAQMD basic and additional construction mitigation measures to reduce construction-related dust.</strong></td>
<td>Pre-Construction: X</td>
<td>Ongoing</td>
<td>The Dust Mitigation Plan was submitted to the JPB. The requirements in the Dust Mitigation Plan will be implemented throughout the construction period and documented in daily reports.</td>
</tr>
</tbody>
</table>
## Mitigation Monitoring and Reporting

<table>
<thead>
<tr>
<th>Mitigation Measure</th>
<th>Mitigation Timing</th>
<th>Status</th>
<th>Status Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ-2b: Implement BAAQMD basic and additional construction mitigation measures to control construction-related ROG and NOX emissions.</td>
<td>Pre-Construction: X, Construction: X</td>
<td>Ongoing</td>
<td>The Equipment Emissions Control Plan was submitted to the JPB. The requirements in the Equipment Emissions Control Plan will be implemented throughout the construction period and documented in daily reports.</td>
</tr>
<tr>
<td>AQ-2c: Utilize clean diesel-powered equipment during construction to control construction-related ROG and NOX emissions.</td>
<td>Pre-Construction: X, Construction: X</td>
<td>Ongoing</td>
<td>The Equipment Emissions Control Plan was submitted to the JPB. The requirements in the Equipment Emissions Control Plan will be implemented throughout the construction period and documented in daily reports.</td>
</tr>
<tr>
<td>BIO-1a: Implement general biological impact avoidance measures.</td>
<td>Pre-Construction: X, Construction: X</td>
<td>Ongoing</td>
<td>Worker Environmental Awareness Training is provided to all project-related personnel before they work on the project. All measures as described will be implemented throughout the construction period and documented in daily reports.</td>
</tr>
<tr>
<td>BIO-1b: Implement special-status plant species avoidance and revegetation measures.</td>
<td>Pre-Construction: X, Construction: X, Operation: X</td>
<td>Complete</td>
<td>Not applicable. Subsequent habitat assessment and avoidance of Communication Hill eliminated any potential to affect special-status plant species. The measure is not needed.</td>
</tr>
<tr>
<td>Mitigation Measure</td>
<td>Mitigation Timing</td>
<td>Status</td>
<td>Status Notes</td>
</tr>
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</tr>
<tr>
<td><strong>BIO-1c:</strong> Implement California red-legged frog and San Francisco garter snake avoidance measures.</td>
<td>X</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>BIO-1d:</strong> Implement western pond turtle avoidance measures.</td>
<td>X</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>BIO-1e:</strong> Implement Townsend’s big-eared bat, pallid bat, hoary bat, and fringed myotis avoidance measures.</td>
<td>X</td>
<td>X</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
## Mitigation Monitoring and Reporting

<table>
<thead>
<tr>
<th>Mitigation Measure</th>
<th>Mitigation Timing</th>
<th>Status</th>
<th>Status Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIO-1f: Implement western burrowing owl avoidance measures.</strong></td>
<td>Pre-Construction: X</td>
<td></td>
<td>Protocol surveys for Western Burrowing Owl were conducted from April 2017 through July 2017 at previously identified potentially suitable habitat locations. Note that all of these locations are in Construction Segment 4 (southern Santa Clara and San Jose). No Burrowing Owls were observed during the surveys. Construction in Segment 4 is anticipated to occur in 2018. Prior to construction activities in Segment 4, pre-construction surveys of the potential habitat areas will occur no more than 7 days prior to the onset of construction activities. In addition, protocol surveys were initiated in March 2018, and were completed in June 2018, at the previously identified potentially suitable habitat locations, which will allow work to occur during the 2019 breeding season, if necessary. No Burrowing Owls were observed during the 2018 surveys.</td>
</tr>
<tr>
<td><strong>BIO-1g: Implement northern harrier, white-tailed kite, American peregrine falcon, saltmarsh common yellowthroat, purple martin, and other nesting bird avoidance measures.</strong></td>
<td>Pre-Construction: X</td>
<td></td>
<td>Nesting Bird surveys were conducted from February 1 through September 15, 2017 prior to project-related activities with the potential to impact nesting birds. No active nests were observed during this reporting period. Nesting Bird surveys were initiated on February 1, 2018 and continued throughout the reporting period. Active nests were observed during this reporting period, and no-disturbance buffers were implemented to avoid any impacts to active nests, and all project activities which occurred nearby active nests were monitored by agency-approved</td>
</tr>
<tr>
<td>Mitigation Measure</td>
<td>Mitigation Timing</td>
<td>Status Notes</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
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<td>-------------</td>
<td></td>
</tr>
<tr>
<td><strong>BIO-1h: Conduct biological resource survey of future contractor-determined staging areas.</strong></td>
<td>X</td>
<td>Pre-Construction</td>
<td>X</td>
</tr>
<tr>
<td><strong>BIO-1i: Minimize impacts on Monarch butterfly overwintering sites.</strong></td>
<td>X</td>
<td>Pre-Construction</td>
<td>X</td>
</tr>
<tr>
<td><strong>BIO-1j: Avoid nesting birds and bats during vegetation maintenance.</strong></td>
<td>X</td>
<td>Pre-Construction</td>
<td>X</td>
</tr>
<tr>
<td><strong>BIO-2: Implement serpentine bunchgrass avoidance and revegetation measures.</strong></td>
<td>X</td>
<td>Pre-Construction</td>
<td>X</td>
</tr>
</tbody>
</table>
## Mitigation Monitoring and Reporting

<table>
<thead>
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<th>Mitigation Timing</th>
<th>Status</th>
<th>Status Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIO-3: Avoid or compensate for impacts on wetlands and waters.</strong></td>
<td>X X X</td>
<td>Complete</td>
<td>The JPB has compensated for unavoidable wetland impacts by purchasing adequate credits from a wetlands mitigation bank approved by USACE and SFRWQCB.</td>
</tr>
<tr>
<td><strong>BIO-5: Implement Tree Avoidance, Minimization, and Replacement Plan.</strong></td>
<td>X X X</td>
<td>Ongoing</td>
<td>Tree removal and pruning activities were initiated in August 2017 under the guidance of the BBI Arborist, and in accordance with the Tree Avoidance, Minimization, and Replacement Plan. Tree Removal and Pruning status is provided to the JPB on a weekly basis.</td>
</tr>
<tr>
<td><strong>BIO-6: Pay Santa Clara Valley Habitat Plan land cover fee (if necessary).</strong></td>
<td>X</td>
<td>Complete</td>
<td>Not applicable. The SCVHP does not apply to the Project because TPS2, Option 1 was not selected and OCS does not extend to Communication Hill. This measure is not needed.</td>
</tr>
<tr>
<td><strong>CUL-1a: Evaluate and minimize impacts on structural integrity of historic tunnels.</strong></td>
<td>X</td>
<td>Upcoming</td>
<td>To be implemented prior to construction in tunnels.</td>
</tr>
<tr>
<td><strong>CUL-1b: Minimize impacts on historic decorative tunnel material.</strong></td>
<td>X</td>
<td>Upcoming</td>
<td>To be implemented prior to construction in tunnels.</td>
</tr>
</tbody>
</table>
### Mitigation Monitoring and Reporting

<table>
<thead>
<tr>
<th>Mitigation Measure</th>
<th>Mitigation Timing</th>
<th>Status</th>
<th>Status Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CUL-1c: Install project facilities in a way that minimizes impacts on historic tunnel interiors.</strong></td>
<td>Pre-Construction: X</td>
<td>Upcoming</td>
<td>To be implemented prior to construction in tunnels.</td>
</tr>
<tr>
<td><strong>CUL-1d: Implement design commitments at historic railroad stations</strong></td>
<td>Pre-Construction: X</td>
<td>Post-Con: X</td>
<td>Complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operation</td>
<td>The Qualified Architectural Historian completed and submitted the HABS Level III documents to the JPB for all seven of the historic stations. Pole placement has been designed to minimize the visual impact to historic stations and all design changes are reviewed by the Environmental Compliance Lead to ensure the mitigation measure is being implemented as the design of the project progresses.</td>
</tr>
<tr>
<td><strong>CUL-1e: Implement specific tree mitigation considerations at two potentially historic properties and landscape recordation, as necessary.</strong></td>
<td>Pre-Construction: X</td>
<td>Post-Con: X</td>
<td>Complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operation</td>
<td>It was determined that the project is not acquiring any ROW at either of the subject properties so all tree effects would be within the JPB ROW. Therefore, the APE does not include these two historic properties. This measure is no longer needed.</td>
</tr>
</tbody>
</table>
## Mitigation Monitoring and Reporting

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<th>Status</th>
<th>Status Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL-1f: Implement historic bridge and underpass design requirements.</td>
<td></td>
<td></td>
<td>This measure is being implemented as described during the design process and will be incorporated into the final design. The four bridges that are included in the MMRP are rail bridges crossing over another feature. Design of the OCS system is taking into account that there are requirements that restrict the design. Thus far, the designs for Construction Segments 2 &amp; 4 are in process and designs are not yet complete. The D-B will forward to the Architectural Historian once complete.</td>
</tr>
<tr>
<td>CUL-2a: Conduct an archaeological resource survey and/or monitoring of the removal of pavement or other obstructions to determine if historical resources under CEQA or unique archaeological resources under PRC 21083.2 are present.</td>
<td>X</td>
<td>Ongoing</td>
<td>Periodic inspections of ground surface areas along the alignment, in conjunction with cultural monitoring as-needed of project activities in culturally sensitive areas are ongoing. The Archaeological Final Report will be provided at the conclusion of construction activities.</td>
</tr>
<tr>
<td>CUL-2b: Conduct exploratory trenching or coring of areas where subsurface project disturbance is planned in those areas with “high” or “very high” potential for buried site.</td>
<td>X</td>
<td>Ongoing</td>
<td>Exploratory trenching and subsurface testing of all potentially culturally sensitive areas occurred prior to the initiation of construction activities in those areas. The results will be included in the Archaeological Final Report. No cultural resources requiring the development of a treatment plan were observed. A Native American monitor has been present for all exploratory trenching and subsurface testing work.</td>
</tr>
</tbody>
</table>
## Mitigation Monitoring and Reporting

<table>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Construction</td>
<td>Construction</td>
<td>Post-Construction</td>
</tr>
<tr>
<td>CUL-2c: Conduct limited subsurface testing before performing ground-disturbing work within 50 meters of a known archaeological site.</td>
<td>X</td>
<td></td>
<td>Ongoing</td>
</tr>
<tr>
<td>CUL-2d: Conduct exploratory trenching or coring of areas within the three zones of special sensitivity where subsurface project disturbance is planned.</td>
<td>X</td>
<td></td>
<td>Ongoing</td>
</tr>
<tr>
<td>CUL-2e: Stop work if cultural resources are encountered during ground-disturbing activities.</td>
<td>X</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td>CUL-2f: Conduct archaeological monitoring of ground-disturbing activities in areas as determined by JPB and SHPO.</td>
<td>X</td>
<td></td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
## Mitigation Monitoring and Reporting

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</tr>
</thead>
<tbody>
<tr>
<td>CUL-3: Comply with state and county procedures for the treatment of human remains discoveries.</td>
<td>X</td>
<td>Ongoing</td>
<td>No human remains have been observed to date on the Project.</td>
</tr>
<tr>
<td>EMF-2: Minimize EMI effects during final design, Monitor EMI effects during testing, commission and operations, and Remediate Substantial Disruption of Sensitive Electrical Equipment.</td>
<td>X X X</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure are being implemented through the final design as described. Designs are submitted and reviewed/commented on by JPB. Monitoring EMI effects will occur post construction.</td>
</tr>
<tr>
<td>GEO-1: Perform a site-specific geotechnical study for traction power facilities.</td>
<td>X</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure are being implemented through the final design as described. Geotechnical studies and results are submitted to JPB as completed.</td>
</tr>
<tr>
<td>GEO-4a: Identification of expansive soils.</td>
<td>X</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure are being implemented through the final design as described. Geotechnical studies and results are submitted to JPB as completed.</td>
</tr>
<tr>
<td>Mitigation Measure</td>
<td>Mitigation Timing</td>
<td>Status</td>
<td>Status Notes</td>
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<tr>
<td>-------------------------------------------------------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>GEO-4b: Mitigation of expansive soils.</td>
<td>X</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure are being implemented through the final design as described. Geotechnical studies and results are submitted to JPB as completed.</td>
</tr>
<tr>
<td>HAZ-2a: Conduct a Phase II Environmental Site Assessment prior to construction.</td>
<td>X</td>
<td>Complete</td>
<td>A Phase II Environmental Assessment was completed prior to construction by the JPB consultant, and the results were provided to BBI, and the required mitigation is being implemented prior to the initiation of construction activities.</td>
</tr>
<tr>
<td>HAZ-2b: Implement engineering controls and best management practices during construction.</td>
<td>X X</td>
<td>Ongoing</td>
<td>Field activities are being monitored daily for significant color changes or odors which may indicate contamination.</td>
</tr>
<tr>
<td>HYD-1: Implement construction dewatering treatment, if necessary.</td>
<td>X X</td>
<td>Ongoing</td>
<td>Facilities &amp; BMPs are in place to deal with this requirement should it arise in the OCS foundations.</td>
</tr>
<tr>
<td>HYD-4: Minimize floodplain impacts by minimizing new impervious areas for TPFs or relocating these facilities.</td>
<td>X</td>
<td>Ongoing</td>
<td>The design requirements indicated in the measure are being implemented through the final design as described. The TPFs in Construction Segments 2 &amp; 4 are currently in final design and design for TPFs in Construction Segments 1 &amp; 3 has begun. The design minimizes hardscape only to required structure foundations; yard areas are to receive a pervious material.</td>
</tr>
<tr>
<td>Mitigation Measure</td>
<td>Mitigation Timing</td>
<td>Status</td>
<td>Status Notes</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
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<td>--------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>HYD-5: Provide for electrical safety at TPFs subject to periodic or potential flooding.</td>
<td>X</td>
<td>X</td>
<td>Ongoing The design requirements indicated in the measure are being implemented through the final design as described. The TPFs in Construction Segments 2 &amp; 4 are currently in final design and design for TPFs in Construction Segments 1 &amp; 3 has begun. The design plan currently raises the TPFs above the floodplain.</td>
</tr>
<tr>
<td>HYD-7: Implement sea level rise vulnerability assessment and adaptation plan.</td>
<td></td>
<td>X</td>
<td>Ongoing The JPB has initiated this measure and preparation of the sea level rise vulnerability assessment and adaptation plan is underway.</td>
</tr>
<tr>
<td>NOI-1a: Implement Construction Noise Control Plan.</td>
<td>X</td>
<td>X</td>
<td>Ongoing The Noise and Vibration Control Plan has been submitted and is being implemented. Field activity is monitored per the Plan. If allowable noise levels are near or exceed allowable noise levels, mitigation such as blankets are used from that point forward.</td>
</tr>
<tr>
<td>NOI-1b: Conduct site-specific acoustical analysis of ancillary facilities based on the final mechanical equipment and site design and implement noise control treatments where required.</td>
<td>X</td>
<td></td>
<td>Ongoing The design requirements indicated in the measure are being implemented through the final design as described. Design is still in process and a noise study is currently being performed.</td>
</tr>
<tr>
<td>NOI-2a: Implement Construction Vibration Control Plan.</td>
<td>X</td>
<td>X</td>
<td>Ongoing The Noise and Vibration Control Plan has been submitted and is being implemented. Field activity is monitored per the Plan.</td>
</tr>
</tbody>
</table>
## Mitigation Monitoring and Reporting

<table>
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<th>Status</th>
<th>Status Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSU-8a: Provide continuous coordination with all utility providers.</td>
<td>Pre-Construction: X</td>
<td>Operation: X</td>
<td>Ongoing</td>
</tr>
<tr>
<td>PSU-8b: Adjust OCS pole foundation locations.</td>
<td>X</td>
<td></td>
<td>Ongoing</td>
</tr>
<tr>
<td>PSU-8c: Schedule and notify users about potential service interruptions.</td>
<td>Pre-Construction: X</td>
<td>Operation: X</td>
<td>Ongoing</td>
</tr>
<tr>
<td>PSU-9: Require application of relevant construction mitigation measures to utility relocation and transmission line construction by others.</td>
<td>Pre-Construction: X</td>
<td>Operation: X</td>
<td>Ongoing</td>
</tr>
<tr>
<td>TRA-1a: Implement Construction Road Traffic Control Plan.</td>
<td>Pre-Construction: X</td>
<td>Operation: X</td>
<td>Ongoing</td>
</tr>
<tr>
<td>TRA-1c: Implement signal optimization and roadway geometry improvements at impacted intersections for</td>
<td>Pre-Construction: X</td>
<td>Operation: X</td>
<td>Upcoming</td>
</tr>
</tbody>
</table>
## Mitigation Monitoring and Reporting

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</thead>
<tbody>
<tr>
<td>the 2020 Project Condition.</td>
<td></td>
<td></td>
<td>Minimization of railway disruption is being coordinated by the Site Specific Work Plan. A Construction Railway Disruption Control Plan was prepared to document the measures that are being implemented.</td>
</tr>
<tr>
<td>TRA-2a: Implement construction railway disruption control plan.</td>
<td>X</td>
<td>X</td>
<td>Ongoing</td>
</tr>
<tr>
<td>TRA-3b: In cooperation with the City and County of San Francisco, implement surface pedestrian facility improvements to address the Proposed Project's additional pedestrian movements at and immediately adjacent to the San Francisco 4th and King Station.</td>
<td>X</td>
<td>X</td>
<td>X Upcoming</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>This measure has not started.</td>
</tr>
<tr>
<td>TRA-4b: Continue to improve bicycle facilities at Caltrain stations and partner with bike share programs where available following guidance in Caltrain’s Bicycle Access and Parking Plan.</td>
<td></td>
<td></td>
<td>X Ongoing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The JPB adopted the Caltrain Bicycle Parking Management Plan in November 2017, and staff have been working to implement the Plan’s recommendations to improve wayside bike parking facilities along the corridor. Staff have also been coordinating with local jurisdictions that have launched bikeshare pilot programs to safely site bicycles near Caltrain stations.</td>
</tr>
</tbody>
</table>
Mitigation Monitoring and Reporting

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<tbody>
<tr>
<td></td>
<td>Pre-Construction</td>
<td>Construction</td>
<td>Post-Construction</td>
</tr>
<tr>
<td>NOI-CUMUL-1: Implement a phased program to reduce cumulative train noise along the Caltrain corridor as necessary to address future cumulative noise increases over FTA thresholds</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>NOI-CUMUL-2: Conduct project-level vibration analysis for Blended System operations and implement vibration reduction measures as necessary and appropriate for the Caltrain corridor</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>TRA-CUMUL-1: Implement a phased program to provide traffic improvements to reduce traffic delays near at-grade crossings and Caltrain stations</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>TRA-CUMUL-2: Implement technical solution to allow electric trolley bus transit across 16th Street without OCS conflicts in cooperation with SFMTA.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mitigation Measure TRA-CUMUL-3: As warranted, Caltrain and freight operators will partner to provide Plate H clearance as feasible between San Jose and Bayshore.</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
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>
</tr>
<tr>
<td>Segment 4</td>
<td>9</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>Systemwide</td>
<td>9</td>
<td>7</td>
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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>2</td>
<td>4</td>
<td>366</td>
<td>194</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>190</td>
<td>37</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>260</td>
<td>0</td>
</tr>
<tr>
<td>2</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
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
DISADVANTAGED BUSINESS ENTERPRISES (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
ELECTRIC MULTIPLE UNITS (EMU)
• Most Final Design Reviews for major systems conducted and being finalized for Caltrain approval
• Carshell Construction and Painting First Article Inspections completed successfully
• 3rd 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 5th 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
EMU

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
MILESTONES

- Caltrain strategic plan makes electrification a priority
- Environmental Clearance
- Award Contract
- Groundbreaking
- First Electric Train Arrives
- Passenger Service with Electric Trains

Additional Capacity Improvements

**Note:** Schedule Subject to Change

*Please keep in mind that testing and construction will overlap as each Segment will be tested individually, prior to final system testing.*
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 (in millions)

<table>
<thead>
<tr>
<th>Category</th>
<th>Budget</th>
<th>Current Budget</th>
<th>FY18 Q3 Costs</th>
<th>Costs to Date</th>
<th>Estimate at Completion</th>
</tr>
</thead>
<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>
</tr>
<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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<tr>
<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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<tr>
<td>PG&amp;E</td>
<td>$57.22</td>
<td>$88.49</td>
<td>$4.17</td>
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<td>$88.49</td>
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<tr>
<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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<tr>
<td>Contingency</td>
<td>$315.53</td>
<td>$270.94</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$253.60</td>
</tr>
<tr>
<td>Anticipated Changes</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$17.34</td>
</tr>
<tr>
<td>PCEP Total</td>
<td>$1,980.25</td>
<td>$1,980.25</td>
<td>$64.01</td>
<td>$489.44</td>
<td>$1,980.25</td>
</tr>
</tbody>
</table>

Note: Budget / Expenditures as of June 30, 2018
ACTUAL VS PLANNED

$591,295,321
Current Available Funds

$489,440,245
as of 06/30/18

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>
<td></td>
<td>$315,533,611</td>
</tr>
<tr>
<td><strong>Drawdown</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Executed Change Orders</td>
<td>$9,883,185</td>
<td></td>
</tr>
<tr>
<td>SCADA Contract</td>
<td>$3,446,917</td>
<td></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>
<td></td>
</tr>
<tr>
<td>Remaining Contingency</td>
<td></td>
<td>$270,940,427</td>
</tr>
</tbody>
</table>

*Note: As of June 30, 2018*
## ANTICIPATED CONTINGENCY DRAWDOWN

<table>
<thead>
<tr>
<th>Contracts</th>
<th>Amount</th>
<th>Contingency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remaining Contingency</td>
<td></td>
<td>$270,940,427</td>
</tr>
<tr>
<td>Pending Contingency Drawdown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Orders In Process</td>
<td>$2,556,696</td>
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</tr>
<tr>
<td>Tunnel Notching (Awarded in July)</td>
<td>$14,786,286</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$17,342,982</td>
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<tr>
<td>Anticipated Remaining Contingency</td>
<td></td>
<td>$253,597,445</td>
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</tbody>
</table>

Note: As of June 30, 2018
CONTINGENCY DRAWDOWN CURVE

Contingency Hold Points (CHP)
- CHP01: Determination of Baseline Budget Rev 4
- CHP02: Entry into Engineering
- CHP03: PG&E Substation Design Acceptance
- CHP04: Finish Segment 4A All Disciplines
- CHP05: OCS Acceptance Testing Completion - Segment 1
- CHP06: Construction & Testing Completion - All Segments
- CHP07: EMU Conditional Acceptance of 14th Trainset
- CHP08: Pre-Revenue Testing Complete

Actual $271
Required $212 (as of 07/31/18)
CHP01 $316
CHP02 $290
CHP03 $232
CHP04 $193
CHP05 $154
CHP06 $116
CHP07 $77
CHP08 $39
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
QUESTIONS
AGENDA ITEM #7 (d)  
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD  
STAFF REPORT

TO: Joint Powers Board

THROUGH: Jim Hartnett  
Executive Director

FROM: John Funghi  
Chief Officer, CalMod Program

SUBJECT: REQUEST AUTHORIZATION FOR THE EXECUTIVE DIRECTOR TO EXECUTE  
CONTRACT CHANGE ORDER FOR INSTALLATION OF INSULATED JOINTS  
UNDER THE 14-PCJPB-P-053 (DESIGN-BUILD ELECTRIFICATION) CONTRACT

ACTION
Staff Coordinating Council recommends the Board:

1. Issue a Contract Change Order #023: Installation of Insulated Joints, in the  
   amount of $3,872,700. This work will be accomplished under the Balfour Beatty  
   Design Build (Contract # 14-PCJPB-P-053) contract.

2. Authorize the Executive Director, or his designee, to execute a Contract Change  
   Order #023 with Balfour Beatty in full conformity with the terms and conditions set  
   forth in the negotiated agreements, and in a form approved by legal counsel.

With Board approval, the above change order will be issued without impacting the  
respective 5% Executive Director Authority to execute future contract change orders.

SIGNIFICANCE
Conversion from a diesel to an electrified system requires modifications to the  
current way the train and signal system communicate to each other. These  
improvements include the installation of track circuits, insulated joints (IJs) and  
impedance bonds. The spreading of railroad ties is also required at some of these  
locations.

The existing Caltrain system has track circuits and IJs at each of the railroad signal  
locations. The track circuits detect where the train’s location is in order to  
communicate with the signal system. The IJs provide insulation to the track circuit.
At the time of the Design Build contract award, the exact number and location of any new IJs was not known. That is because the signal system, which dictates the location of track circuits, was only conceptually defined. Therefore it was decided to exclude this work from the contract and to pursue other means of IJ installation outside of the Design Build Contract. Since that time, the project team has determined that it would be beneficial to have the Design Build Contract complete the work in order to not have to coordinate this construction with an additional contractor when working in the same area.

Installation of impedance bonds are also required under an electrified system in order to support the electrical traction return current, that will be returning through the rails, to bypass the IJs. Impedance bonds will be installed at all of the existing and PCEP-required IJ locations. The installation of impedance bonds is included in the Design Build Contract and is not a change to the Design Build Contract.

Now that the signal system design has progressed, the Project team estimates that approximately 130 new IJs will need to be installed. Because the exact number of IJs will not be known until the signal system design is complete, a unit price for IJs was negotiated. The unit price to supply and install the IJs is $29,790.

Some spreading of the railroad ties will be required for the installation of the new IJs as well as for the installation of the impedance bonds. The Design Build contractor will perform any tie-spreading necessary for the installation of the new IJs and the cost of this work is included in the unit price listed above. Any tie spreading required for the installation of the impedance bonds will be completed by TASI.

This change has been approved by the PCEP Change Management Board.

BUDGET IMPACT
This contract change order will be funded from contingency and does not impact the project's estimate to complete the work.

BACKGROUND
The PCEP is a key component of the Caltrain Modernization (CalMod) Program. The PCEP will electrify the Caltrain Corridor from San Francisco’s 4th and King Caltrain Station to approximately the Tamien Caltrain Station, convert diesel-hauled to electric trainsets, and increase service to up to six Caltrain trains per peak hour per direction.

The design-build and EMU contracts represent approximately 60% of the program budget. These contracts are the cornerstone of the Electrification Program.

Dave Couch, Project Delivery Director, CalMod 650.508.7790
RESOLUTION NO. 2018 -

BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA

***

AUTHORIZING THE EXECUTIVE DIRECTOR TO EXECUTE A CONTRACT CHANGE ORDER FOR INSTALLATION OF INSULATED JOINTS UNDER THE 14-PCJ-PB-P-053 (DESIGN BUILD ELECTRIFICATION) CONTRACT.

WHEREAS, the Peninsula Corridor Electrification Project ("PCEP"), a key component of the Caltrain Modernization program, will electrify the Caltrain Corridor from San Francisco’s 4th and King Caltrain Station to approximately the Tamien Caltrain Station, replace diesel-hauled trainsets with Electric Multiple Unit (EMU) trainsets, and increase service to up to six Caltrain trains per peak hour per direction; and

WHEREAS, the primary purposes of the PCEP are to improve Caltrain system performance and to reduce long-term environmental impacts associated with Caltrain service by reducing noise, improving regional air quality and reducing greenhouse gas emissions; and

WHEREAS, at the July 7, 2016 meeting, by Resolution 2016-35, the Board of Directors of the Peninsula Corridor Joint Powers Board authorized an award of contract to Balfour Beatty, Inc., for design-build services; and

WHEREAS, the work contained in this Contract Change Order is necessary to make the existing signal system compatible with electrification; and

WHEREAS, the signal system design was not sufficiently advanced at the time the Design Build contract was awarded to allow this work to be included; and
WHEREAS the Staff Coordinating Council recommends and the Executive Director concurs that the Board authorize execution of the Contract Change Order in an amount of $3,872,700.00; and

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Peninsula Corridor Joint Powers Board authorizes the Executive Director to execute the Contract Change Order for the installation of insulated joints in an amount of $3,872,700.00.

Regularly passed and adopted this 2nd day of August, 2018 by the following vote:

AYES:

NOES:

ABSENT:

______________________________
Chair, Peninsula Corridor Joint Powers Board

ATTEST:

______________________________
JPB Secretary
AGENDA ITEM #7 (e)  
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD  
STAFF REPORT

TO: Joint Powers Board

THROUGH: Jim Hartnett  
Executive Director

FROM: John Funghi  
Chief Officer, CalMod Program

SUBJECT: REQUEST AUTHORIZATION FOR THE EXECUTIVE DIRECTOR TO EXECUTE A CONTRACT CHANGE ORDER FOR DESIGNING POLE CHANGES ALONG UNION-PACIFIC RAILROAD-OWNED MAIN TRACK-1 UNDER THE 14-PCJPB-P-053 (ELECTRIFICATION) CONTRACT

ACTION
Staff Coordinating Council recommends the Board authorize:

1. Issue a Contract Change Order #016: Designing Union Pacific Railroad (UPRR)-Initiated Pole Changes Along UPRR-Owned Main Track-1 (MT-1) in the amount of $903,000. This work will be accomplished under the Balfour Beatty Design-Build contract (Contract #14-PCJPB-P-053).

2. The Executive Director, or his designee, to execute a separate contract change order with Balfour Beatty in full conformity with the terms and conditions set forth in the negotiated agreements, and in a form approved by legal counsel.

This change order is a consequence of UPRR-required changes after the award of the Electrification Contract. With Peninsula Corridor Joint Powers Board (J PB) approval, the above change order will be issued to the Contractor without impacting the Executive Director's Board-authorized 5 percent authority to execute future contract change orders.

SIGNIFICANCE
The scope of this change to the electrification contract consists of UPRR-required modifications to the electrification pole clearance, or setback, from the UPRR-owned track between Control Point (CP) Coast just north of the Santa Clara Station and CP Lick about three miles south of Tamien Station in San Jose.

In 2017, UPRR indicated that it would require a 15-foot clearance, or setback, for all poles along the UPRR-owned MT-1. This request was received after the electrification contract award at the July 2016 Board meeting.

The UPRR clearance request came after the technical process between Peninsula Corridor Electrification Project (PCEP), UPRR, and CPUC to define and the CPUC to
adopt the Caltrain Operating Rules had been concluded. These Operating Rules define
the electrical requirements for the future electrified Caltrain Corridor. One of those
requirements is pole clearance, or setback, of which the Operating Rules required a
nine-foot-six-inch clearance between track and pole. The Operating Rules were
adopted by the CPUC in November 2016.

After multiple engineering discussions and a joint field visit, the PCEP team was unable
to convince UPRR to waive their 15-foot offset requirement along the UPRR-owned MT-1.

This change order will allow the electrification Contractor to proceed with the design of
the OCS foundations within the UPRR-owned MT-1 between CP Coast and CP Lick.
Potential construction costs due to the pole location changes are currently being
evaluated and would be the subject of a subsequent contract change order.

This change has been approved by the PCEP Change Management Board.

**BUDGET IMPACT**
This contract change order will be funded from contingency and does not impact the
project’s estimate to complete.

**BACKGROUND**
The PCEP is a key component of the Caltrain Modernization (CalMod) Program. The
PCEP will electrify the Caltrain Corridor from San Francisco’s 4th and King Caltrain
Station to approximately the Tamien Caltrain Station, convert diesel-hauled to electric
trainsets, and increase service to up to six Caltrain trains per peak hour per direction.

The Design-Build and Electric Multiple Unit contracts represent approximately 60
percent of the program budget. These contracts are the cornerstone of the
Electrification Program.

Dave Couch, Project Delivery Director, CalMod  
650.508.7790
RESOLUTION NO. 2018 -

BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA

***

AUTHORIZING THE EXECUTIVE DIRECTOR TO EXECUTE A CONTRACT CHANGE ORDER FOR
UPRR MT-1 POLE MOVES UNDER THE 14-PCJPB-P-053(ELECTRIFICATION) CONTRACT

WHEREAS, the Peninsula Corridor Electrification Project (PCEP), a key component of the Caltrain Modernization program, will electrify the Caltrain Corridor from San Francisco’s 4th and King Caltrain Station to approximately the Tamien Caltrain Station, replace diesel-hauled trainsets with Electric Multiple Unit (EMU) trainsets, and increase service to up to six Caltrain trains per peak hour per direction; and

WHEREAS, the primary purposes of the PCEP are to improve Caltrain system performance and to reduce long-term environmental impacts associated with Caltrain service by reducing noise, improving regional air quality and reducing greenhouse gas emissions; and

WHEREAS, at the Peninsula Corridor Joint Powers Board’s July 7, 2016 Board of Directors (Board) meeting, by Resolution 2016-35, the Board of Directors of the Peninsula Corridor Joint Powers Board awarded a contract to Balfour Beatty, Inc., for design-build services for PCEP (Contract); and

WHEREAS, PCEP requires the installation of poles for the Overhead Contact System (OCS); and

WHEREAS, Union Pacific Railroad (UPRR), which owns a portion of right-of-way (known as "Main Track 1" or "MT-1") at the southern edge of the PCEP construction area, requires that the OCS poles along MT-1 to have a deeper set-back from the tracks than
WHEREAS, redesign of PCEP to relocate the poles along MT-1 requires a change order to the Contract; and

WHEREAS the Staff Coordinating Council recommends and the Executive Director concurs that the Board authorize execution of the Contract Change Order in an amount not to exceed $903,000.00; and

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Peninsula Corridor Joint Powers Board authorizes the Executive Director to execute the Contract Change Order for the installation of insulated joints in an amount not to exceed $903,000.00.

Regularly passed and adopted this 2nd day of August, 2018 by the following vote:

AYES:

NOES:

ABSENT:

______________________________
Chair, Peninsula Corridor Joint Powers Board

ATTEST:

______________________________
J P B Secretary
AGENDA ITEM #8
AUGUST 2, 2018

PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board
THROUGH: Jim Hartnett
Executive Director
FROM: Michelle Bouchard
Chief Operating Officer, Rail
SUBJECT: DEVELOPMENT OF A FINANCING PLAN, DEBT POLICY, AND DECLARATION OF OFFICIAL INTENT TO REIMBURSE EXPENDITURES FROM PROCEEDS OF INDEBTEDNESS

ACTION
Staff Coordinating Council recommends the Board:

1. Authorize the Chief Financial Officer to take the necessary steps to proceed with the development of a comprehensive financing plan, including farebox revenue bonds and revolving lines of credit for (a) refinancing needs and (b) new money requirements, including but not limited to real property acquisition, positive train control funding and general working capital;
2. Authorize staff to proceed to work with the City and County of San Francisco, the Santa Clara Valley Transportation Authority, and the San Mateo County Transit District, each a member agency (Member Agency) of the Peninsula Corridor Joint Powers Board (JPB), with respect to the public hearings required to be conducted and the resolutions required to be adopted in connection with the proposed debt;
3. Adopt a Debt Policy; and

SIGNIFICANCE
The proposed debt would be incurred to refund all outstanding farebox revenue bonds, comprised of (i) $22,960,000 aggregate principal amount of Peninsula Corridor Joint Powers Board Farebox Revenue Bonds, 2007 Series A (2007 Series A Bonds) and (ii) $11,000,000 aggregate principal amount of Peninsula Corridor Joint Powers Board Farebox Revenue Bonds, 2015 Series A (2015 Series A Bonds), to finance the purchase of certain real property, to fund a portion of the costs of the positive train control system, and for working capital needs of the JPB. The proposed debt is expected to include the issuance of farebox revenue bonds and borrowings under one or more revolving lines of credit.

Board authorization is required to (i) approve proceeding with the proposed debt and
(ii) authorize staff to take such actions as are necessary to incur the proposed debt, including, but not limited to, such actions as are necessary to assist each Member Agency to take the actions related to the proposed debt required by Section 6586.5 of the California Government Code.

To comply with California Government Code Section 8855, the JPB is required to adopt a Debt Policy complying with said provisions of the Government Code prior to filing the report of a proposed debt issuance required to be filed with the California Debt and Investment Advisory Commission prior to the issuance of any public debt.

The JPB expects to pay certain expenditures related to projects to be financed (collectively, the Project) prior to incurrence of indebtedness for the purpose of financing costs associated with the Project on a long-term basis. Section 1.150-2 of the Treasury Regulations requires the JPB to declare its reasonable official intent to reimburse such prior expenditures for the Project with proceeds of a subsequent borrowing.

**BUDGET IMPACT**

There is no budget impact associated with the authorizations requested in these recommendations. Ultimate incurrence of the proposed debt is expected to result in a modest increase in debt service—more information will be provided when the actions approving the issuance of the debt are brought back to the JPB Board for approval.

**BACKGROUND**

Staff are currently working with our Financial Advisors, Bond Counsel and investment bankers to develop a comprehensive financing plan to accomplish a number of objectives:

- Refinance existing farebox revenue bonds
- Provide new financing for real property acquisition, costs associated with implementation of positive train control, and other corporate purposes
- Provide a new working capital line of credit

After the development of the financing plan, and pursuant to Section 6586.5 of the California Government Code, each Member Agency is required to conduct a public hearing and, subsequent to conducting the public hearing, adopt a resolution approving the proposed debt and making a finding of significant public benefit in accordance with the criteria specified in Section 6586.5 of the California Government Code. Staff is working with each of the Member Agencies with respect to these actions. Subsequent to these approvals, staff will return to the JPB Board for final approval of the transaction including all documents—this is currently anticipated to be scheduled for the November 2018 meeting.

On September 12, 2016, Governor Brown signed State Senate Bill 1029, which requires public agencies that issue debt to adopt debt policies meeting certain criteria.

Effective January 1, 2017, any state or local debt issuer must certify that it has adopted a local debt policy concerning the use of debt proceeds that include the following:
1. The purpose for which the debt proceeds may be used.
2. The types of debt that may be issued.
3. The relationship of the debt to and integration with, the issuer’s capital improvement program or budget, if applicable.
4. Policy goals related to the issuer’s planning goals and objectives.
5. Internal control procedures that the issuer has implemented, or will implement, to ensure that the proceeds of the proposed debt issuance will be directed to the intended use.

The proposed Debt Policy complies with the provisions of SB 1029 as currently written. Revisions may be necessary in the future if changes are made to the applicable section of the Government Code.

Adoption of the Declaration of Official Intent is made solely for purposes of establishing compliance with Section 1.150-2 of the Treasury Regulations, which will enable the JPB to reimburse itself for allowable expenditures incurred prior to completion of a contemplated tax-exempt financing. It does not bind the JPB to make any expenditure or incur any indebtedness, but rather serves to preserve flexibility for the JPB as we develop the financing plan.

Prepared By: Derek Hansel, Chief Financial Officer 650.508.6466
Connie Mobley-Ritter, Director-Treasury 650.508.7765
PENINSULA CORRIDOR JOINT POWERS BOARD DEBT POLICY
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I. Purpose

The purpose of this Debt Policy (the "Debt Policy") is to establish comprehensive guidelines for the issuance and management of debt issuances (herein referred as "Debt") by Peninsula Corridor Joint Powers Board (the "Issuer"). This Debt Policy is intended to help ensure that: (i) the Issuer, the governing body of the Issuer (the "Board of Directors" or the "Board"), and Issuer management and staff adhere to sound debt issuance and management practices; (ii) the Issuer achieves the most advantageous cost of borrowing commensurate with prudent levels of risk; and (iii) the Issuer preserves and enhances the credit ratings assigned to its debt.

II. Scope of Debt Policy

This Debt Policy shall provide guidance for the issuance and management of debt issuances of the Issuer, together with credit, liquidity and other ancillary instruments and agreements secured or executed in connection with such transactions. While adherence to this Debt Policy is recommended in applicable circumstances, the Issuer recognizes that changes in the capital markets, Issuer programs and other unforeseen circumstances may produce situations that are not covered by the Debt Policy or require modifications or exceptions to achieve Debt Policy goals. In these cases, management flexibility is appropriate, provided specific authorization from the Board of Directors is obtained. The Issuer may approve Debt and other related agreements the terms or provisions of which deviate from this Debt Policy, upon the recommendation and approval of the Chief Financial Officer of the Issuer (the "Chief Financial Officer") as circumstances warrant. The failure by the Issuer to comply with any provision of this Debt Policy shall not affect the validity of any Debt that is otherwise duly authorized and executed.

The Chief Financial Officer is the designated administrator of the Debt Policy. The Chief Financial Officer shall have the day-to-day responsibility and authority for structuring, implementing and managing the Issuer's debt and financing program. The Debt Policy requires that each debt issuance be specifically authorized by the Board of Directors.

III. Legal Authority; Compliance with Laws, Resolutions, Debt Documents and Other Contracts

A) Legal Authority

The Issuer has exclusive authority to plan and issue Debt for Issuer related purposes, subject to approval by the Board of Directors.
B) Compliance with Law

All Debt of the Issuer shall be issued in accordance with applicable Federal and State laws, rules and regulations, including without limitation the Internal Revenue Code of 1986 (the "Code") with respect to the issuance of tax-exempt Debt, the Securities Act of 1934 and the Securities Exchange Act of 1933, in each case as supplemented and amended, and regulations promulgated pursuant to such laws.

C) Compliance with Issuer Resolutions and Debt Documents

Debt of the Issuer shall be issued in accordance with applicable resolutions and debt documents of the Issuer, in each case as supplemented and amended.

D) Compliance with Other Agreements

Debt of the Issuer shall be issued in compliance with any other agreements of the Issuer with credit or liquidity providers, bond insurers or other third parties.

E) Compliance with SB 1029

This Debt Policy complies with California Senate Bill 1029 (2016). The following paragraph cross-references the debt policy requirements of SB 1029 with the relevant sections of this policy.

1) Cal. Gov. Code Section 8855(i)(1)(A): The purposes for which the debt may be used. See Section V: Purposes for Debt.

2) Cal. Gov. Code Section 8855(i)(1)(B): The types of debt that may be issued. See Section VI: Types of and Limitations on Debt.


5) Cal. Gov. Code Section 8855(i)(1)(E): The internal control procedures that the issuer has implemented, or will implement, to ensure that the proceeds of the proposed debt issuance will be directed to the intended use. See Section IV: Administration of Debt Policy.

IV. Administration of Debt Policy

A) Issuer

The Issuer shall be responsible for:
1) Approval of the issuance of all Debt and the terms and provisions thereof;

2) Appointment of financial advisors, bond counsel, disclosure counsel, Issuer consultants, underwriters, feasibility consultants, trustee and other professionals retained in connection with the issuance of Debt;

3) Approval of this Debt Policy and any supplements or amendments;

4) Periodic approval of the Issuer's capital improvement plans;

5) Periodic approval of proposed Issuer annual and supplemental budgets for submission to the Board of Directors, including without limitation provisions for the timely payment of principal of and interest on all Debt; and

6) Maintaining internal control procedures with respect to Debt proceeds.

B) Chief Financial Officer

The Chief Financial Officer shall have responsibility and authority for the structure, issuance and management of the Issuer's Debt and financing programs. These responsibilities shall include, but not be limited to, the following:

1) Determining the appropriate structure and terms for all proposed debt transactions;

2) Undertaking to issue Debt at the most advantageous interest and other costs consistent with prudent levels of risk;

3) Ensuring compliance of any proposed Debt with any applicable additional debt limitations under State law, or the Issuer's Debt Policy, resolutions and debt documents;

4) Seeking approval from the Board of Directors for the issuance of Debt or other debt obligations;

5) Coordinating with member agencies of the Issuer in connection with securing any approvals required from the member agencies in connection with Debt issuance;

6) Recommending to the Board of Directors the manner of sale of any Debt or other debt transactions;

7) Monitoring opportunities to refund outstanding Debt to achieve debt service savings, and recommending such refunding to the Board, as appropriate;

8) Providing for and participating in the preparation and review of all legal and disclosure documents in connection with the issuance of any Debt by the Issuer;
9) Recommending the appointment of financial advisors, bond counsel, disclosure counsel, Issuer consultants, underwriters, feasibility consultants and other professionals retained in connection with the Issuer's debt issuance as necessary or appropriate;

10) Distributing information regarding the business operations and financial condition of the Issuer to appropriate bodies on a timely basis in compliance with any applicable continuing disclosure requirements;

11) Communicating regularly with the rating agencies, bond insurers, investment providers, institutional investors and other market participants related to the Issuer's Debt; and

12) Maintaining a database with summary information regarding all of the Issuer's outstanding Debt and other debt obligations.

C) Procedures for Approval of Debt

The proposed issuance of Debt by the Issuer shall be submitted to and subject to approval by the Issuer Board of Directors for authorization and approval.

D) Considerations in Approving Issuance of Debt

The Issuer may take into consideration any or all of the following factors, as appropriate, prior to approving the proposed issuance of Debt:

1) Whether the proposed issuance complies with this Debt Policy;

2) Source(s) of payment and security for the Debt;

3) Projected revenues and other benefits from the projects proposed to be funded;

4) Projecting operating, other costs and potential revenues with respect to the proposed projects;

5) Impacts, if any, on debt service coverage and funds required for operations of the Issuer;

6) Impacts, if any, on Issuer and Debt credit ratings;

7) Period, if any, over which interest on the Debt should be capitalized;

8) Extent to which debt service on the Debt should be level or non-level;

9) Appropriate lien priority of the Debt; and

10) Adequacy of the proposed disclosure document.
V. Purposes for Debt

The Issuer may issue Debt for the purposes of financing and refinancing the costs of capital projects undertaken by the Issuer. The Issuer may also issue Debt to pay extraordinary unfunded costs, including, but not limited to, termination or other similar payments due in connection with interest rate swaps (if any) and investment agreements entered into in connection with Debt. Proceeds of Debt may be applied to pay costs of issuances, to fund capitalized interest and debt service reserves and to pay costs incurred in connection with securing credit enhancement, including but not limited to, premiums payable for bond insurance and reserve fund sureties.

The Issuer shall not issue Debt for the purpose of funding operating costs except under extraordinary circumstances or at minimal cost for cash flow management purposes where statutorily permitted.

VI. Types of and Limitations on Debt

A) Farebox Revenue Bonds

The Issuer may issue Debt secured by and payable in whole or in part from a pledge of farebox revenues.

B) Sales Tax Revenue Debt

If and to the extent authorized in accordance with applicable provisions of State law, the Issuer may issue Debt payable in whole or in part from sales tax revenues.

C) Other Revenue Debt

If and to the extent authorized in accordance with applicable provisions of State law, the Issuer may issue Debt payable in whole or in part from other types of revenues.

D) Grant Debt

The Issuer may issue Debt payable in whole or in part from Federal and State grants to pay capital or other costs as permitted by the applicable provisions, conditions and requirements specified in the applicable grant, including, but not limited to, Debt in the form of notes payable from, and in anticipation of, the future receipt of grant proceeds.

E) Other Federally Supported Programs

The Issuer may also participate in loan programs administered or provided by the United States Department of Transportation, including, but not limited to, loans provided under the Transportation Infrastructure Finance and Innovation Act (TIFIA) and the Railroad Rehabilitation and Improvement Financing Program, and may
secure credit enhancement and/or credit support provided under the other Federal programs.

F) Lease and Installment Payment Obligations

If and to the extent authorized in accordance with applicable provisions of State law, the Issuer may issue lease backed or installment payment certificates of participation payable in whole or in part from underlying lease or installment sale revenues.

G) Refunding Debt

The Issuer may issue Debt to refund the principal of and interest on outstanding Debt of the Issuer in order to (i) achieve debt service savings; (ii) restructure scheduled debt service; (iii) convert from or to a variable or fixed interest rate structure; (iv) change or modify the source or sources of payment and security for the refunded Debt; or (v) modify covenants otherwise binding upon the Issuer. Refunding Debt may be issued either on a current or advance basis, as permitted by applicable Federal tax laws. The Issuer may also utilize a tender offer process to refund Debt that is not otherwise subject to optional call by the Issuer.

Refunding Debt should be issued to achieve debt service savings in most cases. Refundings which do not produce savings are permitted if justified based on the need for restructuring to remove covenants/plights that are restrictive and/or no longer required by the market and/or to make other changes in debt documents that would benefit the current, short-term, or long term capital cost of the Issuer.

H) Long-Term Debt

The Issuer may issue Debt with longer-term maturities to amortize Issuer capital or other costs over a period commensurate with the expected life, use or benefit provided by the project, program or facilities financed from such Debt. Long-term Debt generally will have a final maturity of five (5) years or more.

I) Short-Term Debt

The Issuer may issue Debt with shorter-term maturities to provide interim financing for capital projects in anticipation of the issuance of longer-term Debt, receipt of Federal or State grants, receipt of other revenues, and/or for cash flow management. Short-term Debt shall consist of Debt of an issue with a final maturity of less than five (5) years and may include, but is not limited to, Debt in the form of Tax and Revenue Anticipation Notes, Bond Anticipation Notes, Grant Anticipation Notes, and/or Commercial Paper.

J) Fixed-Rate Debt

The Issuer may and generally will issue Debt that bears a fixed interest rate.
K) Variable Rate Debt

The Issuer may also issue Debt that bears a variable rate of interest, including, but not limited to, variable rate demand obligations and floating rate notes.

VII. Terms and Provisions of Debt

A) Debt Service Structure

The Issuer shall design the financing schedule and repayment of debt so as to take best advantage of market conditions, provide flexibility and, as practical, to recapture or maximize its debt capacity for future use. Annual debt service payments will generally be structured on a level basis; however, principal amortization may occur more quickly or slowly where permissible, to mirror debt repayment streams and/or provide future financing flexibility.

B) Amortization of Principal

Long-term Debt of the Issuer shall be issued with maturities that amortize the principal of such Debt over a period commensurate with the expected life, use or benefit (measured in years) provided by the projects, programs and/or facilities financed from the proceeds of such Debt. The weighted average maturity of such Debt (if issued as tax-exempt Debt) should not exceed one hundred and twenty percent (120%) of the reasonably estimated weighted average life, use or benefit (measured in years) of the projects, programs and/or facilities financed from the proceeds of such Debt.

Amortization of principal may be achieved either through serial maturities and/or through term Debt subject to mandatory sinking fund payments and/or redemptions.

C) Capitalization of Interest

The Issuer may fund interest on Debt from proceeds of Debt for legal, budgeting or structuring purposes.

D) Call Provisions for Debt

1) Optional Call Provisions. The Issuer shall seek to include the shortest practicable optional call rights, with and/or without a call premium, consistent with optimal pricing of such Debt. Call premiums, if any, should not be in excess of then prevailing market standards and to the extent consistent with the most advantageous borrowing cost for the Issuer. Non-callable maturities may be considered and used to accommodate market requirements or other advantageous benefits to the Issuer.

2) Extraordinary Call Provisions. The Issuer, at its option, may include extraordinary call provisions, including for example with respect to unspent proceeds, damage
to or destruction of the project or facilities financed, credit-related events of the Issuer or the user of the project or facilities financed, or other matters, as the Issuer may determine is necessary or desirable.

E) Payment of Interest

1) Current Interest Debt may be issued. It is anticipated that the interest on most, if not all, Debt issued will be paid on a current interest basis.

2) Deferred Interest Debt may also be issued. Debt of the Issuer may be issued with the payment of actual or effective interest deferred in whole or in part to the maturity or redemption date of each debt instrument, or the conversion of such debt instrument to a current interest-paying debt instrument (known, respectively, as capital appreciation bonds, zero coupon bonds and convertible capital appreciation bonds). Deferred Interest Debt may be issued to achieve optimal sizing, debt service structuring, pricing or for other purposes.

F) Determination of Variable Interest Rates on Debt

The interest rate from time to time on Debt the interest of which is not fixed to maturity may be determined in such manner that the Issuer determines, including without limitation on a daily, weekly, monthly or other periodic basis, by reference to an index, prevailing market rates or other measures, and by or through an auction or other method.

G) Tender Options on Debt

The Issuer may issue Debt subject to the right or obligation of the holder to tender the Debt back to the Issuer for purchase, including, for example, to enable the holder to liquidate their position, or upon the occurrence of specified credit events, interest rate mode changes or other circumstances. The obligation of the Issuer to make payments to the holder upon any such tender may be secured by (i) a credit or liquidity facility from a financial institution in an amount at least equal to the principal amount of the Debt subject to tender, (ii) a liquidity or similar account into which the Issuer shall deposit and maintain an amount at least equal to the principal amount of the Debt subject to tender, or (iii) other means of self-liquidity that the Issuer deems prudent.

H) Multi-Modal Debt

The Issuer may issue Debt that may be converted between two or more interest rate modes without the necessity of a refunding. Such interest rate modes may include, without limitation: daily interest rates, weekly interest rates, other periodically variable interest rates, commercial paper rates, auction rates, fixed rates for a term and fixed rates to maturity (in each case with or without tender options).
I) Debt Service Reserve Funds

The Issuer may issue Debt that is secured by amounts on deposit in or credited to a debt service reserve fund or account in order to minimize the net cost of borrowing and/or to provide additional reserves for debt service or other purposes. Debt service reserve funds may secure one or more issues of Debt, and may be funded by proceeds of Debt, other available moneys of the Issuer, and/or by surety policies, letters or lines of credit or other similar instruments. Surety policies, letters or lines of credit or other similar instruments may be substituted for amounts on deposit in a debt service reserve fund if such amounts are needed for capital projects or other purposes.

Amounts in the debt service reserve funds shall be invested in accordance with the requirements of the applicable Debt documents in order to: (i) maximize the rate of return on such amounts; (ii) minimize the risk of loss; (iii) minimize volatility in the value of such investments; and (iv) maximize liquidity so that such amounts will be available if it is necessary to draw upon them.

J) Lien Levels

The Issuer may create senior and junior lien pledges for each fund source which secures Debt repayment in order to optimize financing capacity.

VIII. Maintenance of Liquidity; Reserves

The Issuer may maintain unencumbered reserves in amounts sufficient in the determination of the Issuer to cover unexpected revenue losses, operating and maintenance costs, extraordinary payments and other contingencies, and to provide liquidity in connection with the Issuer's outstanding Debt.

IX. Investment of Debt Proceeds and Related Moneys

Proceeds of Debt and amounts in the Issuer's debt service, project fund and debt service reserve funds with respect to outstanding Debt shall be invested in accordance with the terms of the applicable Debt documents and other applicable agreements of the Issuer.

X. Third Party Credit Enhancement

The Issuer may secure credit enhancement for its Debt from third-party credit providers to the extent such credit enhancement is available upon reasonable, competitive and cost-effective terms. Such credit enhancement may include municipal bond insurance ("Bond Insurance"), letters of credit and lines of credit (collectively and individually, "Credit Facilities"), as well as other similar instruments.

A) Bond Insurance

All or any portion of an issue of Debt may be secured by Bond Insurance provided by municipal bond insurers ("Bond Insurers") if it is economically advantageous to do
so, or if it is otherwise deemed necessary or desirable in connection with a particular issue of Debt. The relative cost or benefit of Bond Insurance may be determined by comparing the amount of the Bond Insurance premium to the present value of the estimated interest savings to be derived as a result of the insurance.

B) Credit Facilities

The issuance of certain types of Debt requires a letter of credit or line of credit (a "Credit Facility") from a commercial bank or other qualified financial institution to provide liquidity and/or credit support. The types of Debt where a Credit Facility may be necessary include commercial paper, variable rate Debt with a tender option and Debt that could not receive an investment grade credit rating in the absence of such a facility.

The criteria for selection of a Credit Facility provider shall include the following:

1) Long-term ratings from at least two nationally recognized credit rating agencies ("Rating Agencies") preferably to be equal to or better than those of the Issuer;

2) Short-term ratings from at least two Rating Agencies of at least P-1/A-1 or equivalent;

3) Experience providing such facilities to state and local government issuers;

4) Fees, including without limitation initial and ongoing costs of the Credit Facility; draw, transfer and related fees; counsel fees; termination fees and any trading differential; and

5) Willingness to agree to the terms and conditions proposed or required by the Issuer.

XI. Use of Derivatives

Derivative products, include, but are not limited to, interest rate swaps, interest rate caps and collars and forward or other hedging agreements. Derivative products will be considered in the issuance or management of debt only in instances where it has been demonstrated that the derivative product will either provide a hedge that reduces risk of fluctuations in expense or revenue, or alternatively, where it will reduce total debt service cost in a manner that exceed the risks. Derivative products will only be utilized following the adoption of derivative product policy and with prior Board approval. In addition, an analysis of early termination costs and other conditional terms must be completed by the Issuer's financial advisor prior to the approval of any derivative product by the Board. Such analysis will document the risks and benefits associated with the use of the particular derivative product.
XII. Methods of Sale and Pricing of Debt

There are three principal methods for the initial sale of Debt: (i) competitive; (ii) negotiated and (iii) private placement, including, but not limited to, direct purchase transactions. The Issuer shall utilize that method of sale that (a) is reasonably expected to produce the most advantageous interest cost with respect to the Debt and (b) provides the Issuer with the flexibility most desirable in connection with the structuring, timing or terms of such Debt. The Issuer shall utilize such method that is likely to provide the most advantageous borrowing costs and execution on behalf of the Issuer.

Debt may be sold at such prices, including at par, a premium or a discount, as the Issuer, in consultation with its financial advisor, may determine is likely to produce the most advantageous interest cost under then prevailing market conditions, subject to compliance with applicable State law and Federal laws.

XIII. Debt Redemption Programs

The Issuer may establish from time-to-time a plan or program for the payment and/or redemption of outstanding Debt and/or interest thereon from revenues and/or other available funds pursuant to a recommendation from the Chief Financial Officer. Such plan or program may be for the purposes of reducing outstanding Debt, managing the amount of debt service payable in any year, or other suitable purposes, as determined by the Issuer.

XIV. Professional Services

The Issuer may retain professional services providers as necessary or desirable in connection with: (i) the structuring, issuance and sale of its Debt; (ii) monitoring of and advice regarding its outstanding Debt; and (iii) the negotiation, execution and monitoring of related agreements, including without limitation Bond Insurance, Credit Facilities, Derivatives and investment agreements; and (iv) other similar or related matters. Professional service providers may include financial advisors, bond counsel, disclosure counsel, Issuer consultants, bond trustees and Federal arbitrage rebate services providers, and may include, as appropriate, underwriters, feasibility consultants, remarketing agents, auction agents, broker-dealers, escrow agents, verification agents and other similar parties.

The Issuer shall require that its financial advisors, bond and disclosure counsel and other Issuer consultants be free of any conflicts of interest, or that any necessary or appropriate waivers or consents are obtained.

A) Financial Advisors

The Issuer may utilize one or more financial advisors to provide ongoing advisory services with respect to the Issuer's outstanding and proposed Debt and related agreements, including without limitation Bond Insurance, Credit Facilities, Derivatives, investment agreements and other similar matters. Financial advisors
must be registered with the Municipal Securities Rulemaking Board and as a municipal advisor as such term is defined in the Securities Exchange Act of 1934 and shall be required to disclose any conflicts of interest.

B) Bond Counsel, Disclosure Counsel and Other Legal Counsel

1) Bond Counsel. The Issuer may utilize one or more bond counsel firms to provide ongoing legal advisory services with respect to the Issuer's outstanding and proposed Debt and related agreements, including without limitation Credit Facilities, Derivatives, investment agreements and other similar matters. All Debt issued by the Issuer shall require a written opinion from the Issuer's bond counsel, as appropriate, regarding (i) the validity and binding effect of the Debt, and (ii) the exemption of interest from Federal and State income taxes.

2) Disclosure Counsel. The Issuer may utilize a disclosure counsel firm to provide ongoing legal advisory services with respect to initial and continuing disclosure in connection with the Issuer's outstanding and proposed Debt. Such firm may be one of the Issuer's bond counsel firms.

3) Other Legal Counsel. The Issuer may encourage or require, as appropriate, the retention and use of legal counsel by other parties involved in the issuance of Debt and the execution of related agreements which are approved by the Issuer.

C) Issuer Consultant

The Issuer may utilize one or more outside Issuer consultants to provide ongoing advisory services with respect to the Issuer's outstanding and proposed Debt, Issuer fares, strategic business and financial decisions and such other matters as the Issuer requires.

D) Trustees and Fiscal Agents

The Issuer may engage bond trustees and/or fiscal agents, paying agents and tender agents, as necessary or appropriate, in connection with the issuance of its Debt.

E) Underwriters

The Issuer may engage an underwriter or a team of underwriters, including a senior managing underwriter, in connection with the negotiated sale of its Debt. The Issuer also may engage one or more underwriters, as necessary or appropriate, to serve as remarketing agents, broker-dealers or in other similar capacities with respect to variable rate, auction, tender option, commercial paper and other similar types of Debt issued by the Issuer.
F) Feasibility Consultants

The Issuer may retain feasibility consultants in connection with proposed project, programs, facilities or activities to be financed in whole or in part from proceeds of Debt. The criteria for the selection of such feasibility consultants, in addition to those set forth above, shall include their expertise and experience with projects, programs, facilities or activities similar to those proposed to be undertaken by the Issuer.

G) Arbitrage Rebate Services Providers

Because of the complexity of the Federal arbitrage rebate statutes and regulations, and the severity of potential penalties for non-compliance, the Issuer may retain an arbitrage rebate services provider in connection with its outstanding and proposed Debt, and may also solicit related legal and tax advice from its bond counsel or separate tax counsel. The responsibilities of the arbitrage rebate services provider shall include: (i) the periodic calculation of any accrued arbitrage rebate liability and of any rebate payments due under and in accordance with the Code and the related rebate regulations; (ii) advice regarding strategies for minimizing arbitrage rebate liability; (iii) the preparation and filing of periodic forms and information required to be submitted to the Internal Revenue Service; (iv) the preparation and filing of requests for reimbursement of any prior overpayments; and (v) other related matters as requested by the Issuer.

The Issuer shall maintain necessary and appropriate records regarding (i) the expenditure of proceeds of Debt, including the individual projects and facilities financed and the amounts expended thereon, and (ii) investment earnings on such Debt proceeds. The Issuer shall maintain such records for such period of time as shall be required by the Code.

H) Other Professional Services

The Issuer may retain such other professional services providers, including without limitation verification agents, escrow agents, auction agents, as may be necessary or appropriate in connection with its Debt.

XV. Budgeting and Capital Planning

The Issuer's budgeting process, including its budgeting process for capital expenditures, shall provide a framework for evaluating proposed debt issuances.

XVI. Credit Rating Objectives

The Issuer shall seek to preserve and enhance the credit ratings with respect to its outstanding Debt to the extent consistent, with the Issuer's current and anticipated business operations and financial condition, strategic plans and goals and other objectives, and in accordance with any developed credit strategies.
XVII. Debt Affordability

Consistent with its credit rating objectives, the Issuer shall periodically review its debt affordability levels and capacity for the undertaking of new financing obligations to fund its capital improvement plans. Debt affordability measures shall be based upon the credit objectives of the Issuer, criteria identified by rating agencies, comparison of industry peers and other internal factors of the Issuer.

XVIII. Relationships with Market Participants

The Issuer shall seek to preserve and enhance its relationships with the various participants in the municipal bond market, including without limitation, the Rating Agencies, Bond Insurers, credit/liquidity providers and current and prospective investors, including through periodic communication with such participants.

The Issuer shall prepare or cause to be prepared appropriate disclosures as required by Securities and Exchange Commission Rule 15c2-12, the federal government, the State of California, rating agencies and other persons or entities entitled to disclosure to ensure compliance with applicable laws and regulations and agreements to provide ongoing disclosure.

XIX. Periodic Review

The Chief Financial Officer shall review this Debt Policy on a periodic basis, and recommend any changes to the Board for consideration. This Debt Policy, including any proposed changes or additions hereto, shall be presented to the Board at least once every three (3) years for re-approval.
RESOLUTION NO. 2018-____

PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA
***

ADOPTION OF DEBT POLICY

WHEREAS, the Peninsula Corridor Joint Powers Board (the "JPB") is required to submit reports to the California Debt and Investment Advisory Commission ("CDIAC") in connection with its debt issuances;

WHEREAS, pursuant to Section 8855(i) of the California Government Code, CDIAC now requires that issuers include a certification in reports filed in connection with debt issuances certifying that the issuer has adopted a local debt policy;

WHEREAS, in order to comply with Section 8855(i) of the California Government Code, the JPB proposes to adopt a debt policy; and

WHEREAS, a proposed form of debt policy (the "Debt Policy") has been prepared and placed on file with the JPB Secretary prior to this meeting;

NOW, THEREFORE BE IT RESOLVED by the governing body of the PENINSULA CORRIDOR JOINT POWERS BOARD as follows:

Section 1. Findings. The foregoing recitals are true and correct.

Section 2. Debt Policy. The Debt Policy is hereby adopted.

Section 3. Effective Date. This Resolution shall take effect immediately upon its passage.

Regularly passed and adopted this 2nd day of August, 2018 by the following vote:

AYES:

NOES:

ABSENT:

______________________________
Chair, Peninsula Corridor Joint Powers Board

ATTEST:

______________________________
JPB Secretary
RESOLUTION NO. 2018-____

PENINSULA CORRIDOR JOINT POWERS BOARD
STATE OF CALIFORNIA

***

DECLARATION OF OFFICIAL INTENT OF PENINSULA CORRIDOR JOINT POWERS BOARD TO REIMBURSE CERTAIN EXPENDITURES FROM PROCEEDS OF INDEBTEDNESS

WHEREAS, the Peninsula Corridor Joint Powers Board, a public entity duly organized and existing as a joint exercise of powers agency under and by virtue of the laws of the State of California (the "JPB"), intends (i) to implement and install a positive train control system (the "PTC Project") for the Caltrain commuter rail service ("Caltrain"), operated by the JPB and/or (ii) to acquire certain real property to be used in connection with the operation of Caltrain;

WHEREAS, the JPB has paid certain expenditures and/or expects to pay certain other expenditures (the "Reimbursement Expenditures") in connection with the above identified projects (hereinafter collectively referred to as the "Project") prior to the incurrence of indebtedness on a long-term basis, a portion of which indebtedness is expected to be applied for the purpose of financing costs associated with the Project;

WHEREAS, Section 1.150-2 of the Treasury Regulations requires the JPB to declare its reasonable official intent to reimburse prior expenditures for the Project with proceeds of a subsequent borrowing;

WHEREAS, the JPB reasonably expects that debt obligations in an amount not expected to exceed $125 million will be incurred and that certain of the proceeds of such debt obligations will be used to reimburse the Reimbursement Expenditures; and

WHEREAS, the governing body of the JPB desires to declare its reasonable intent to reimburse prior expenditures for the Project with proceeds of a subsequent borrowing;

NOW, THEREFORE BE IT RESOLVED that the governing body of the PENINSULA CORRIDOR JOINT POWERS BOARD declares:

Section 1. Findings. The foregoing recitals are true and correct.

Section 2. Purpose of Declaration. This declaration is made solely for purposes of establishing compliance with the requirements of Section 1.150-2 of the Treasury Regulations. This declaration does not bind the JPB to make any expenditure, incur any indebtedness, or proceed with the Project.

Section 3. Declaration of Official Intent. The governing body of the JPB hereby declares its official intent to use proceeds of indebtedness to reimburse the JPB for Reimbursement Expenditures.
Section 4. Effective Date. This declaration shall take effect immediately upon its passage.

Regularly passed and adopted this 2nd day of August, 2018 by the following vote:

AYES:

NOES:

ABSENT:

Chair, Peninsula Corridor Joint Powers Board

ATTEST:

______________________________
J PB Secretary
TO: Joint Powers Board
THROUGH: Jim Hartnett
Executive Director
FROM: Michelle Bouchard
Chief Operating Officer, Rail
SUBJECT: SAN FRANCISCO RAIL ALIGNMENT AND BENEFITS STUDY

ACTION
Staff Coordinating Council recommends the Board receive an information presentation by the City and County of San Francisco on their Rail Alignment and Benefits (RAB) Study.

SIGNIFICANCE
The City & County of San Francisco’s Rail Alignment and Benefits Study (RAB) (previously known as the Railyard Alternatives and I-280 Boulevard Feasibility Study) is a multi-agency study of transportation and land use alternatives in southeast San Francisco. The RAB study is comprised of five components: 1) rail alignment into the Salesforce Transit Center; 2) Railyard reconfiguration/relocation; 3) urban form and land use opportunities; 4) Salesforce Transit Center extension/loop; and 5) assessment of a boulevard replacing the north end of I-280. The study includes consideration of the Caltrain corridor alignment into San Francisco; considerations for the at-grade crossings at Mission Bay Drive and 16th Street; and the future of the Caltrain 4th and King Railyard.

BUDGET IMPACT
There is no impact on the budget.

BACKGROUND
The RAB study has focused on helping the city, region, State, and nation realize the goal of bringing High Speed Rail and Caltrain service to the Salesforce Transit Center (SFTC – Previously known as the Transbay Transit Center). Three years ago, the City and County of San Francisco recognized that if the projects went forward as planned, additional impacts to the City would need to be addressed if this regional vision was to become a reality. The RAB study is a comprehensive look for solutions – unbounded by jurisdictional boundaries and budget(s) that limited previously approved projects. This unconstrained approach, while difficult and sometimes controversial, is now pointing to concrete solutions that could solve for needed grade separation while delivering a better project, and encouraging local and regional economic development.
The Study objectives include providing a world-class rail network, assessing infrastructure investments to support Caltrain and California High Speed Rail by evaluating options that support land uses in the SoMa/Mission Bay area of the City; connecting neighborhoods; and to connect San Francisco transportation in a manner that supports land use and railway operations.

DOWNTOWN RAIL EXTENSION PROJECT
The Downtown Rail Extension (DTX), which is Phase 2 of the Transbay Joint Powers Authority (TJPA) Transit Center Program, is a 1.3 mile rail extension that will be constructed principally below grade using cut-and-cover and mined tunneling methods underneath Townsend and Second Streets in San Francisco. The project will connect rail service from the Caltrain 4th and King Station to the newly constructed Salesforce Transit Center. The DTX includes constructing an underground station at 4th and Townsend streets adjacent to 4th and King Station. It will also deliver the California High-Speed Rail Authority’s future high-speed rail service to the Salesforce Transit Center.

Recent activities on the DTX project include partial update of the 30% PE design; cost estimates were refreshed; a tunnel options study to evaluate options to limiting cut-and-cover construction was completed; and a peer review of the rail operations study, resulting in all stakeholders confirming that a three-track alignment is required to ensure reliable service on the DTX. The TJPA is also working on the Phase 2 Funding Plan. Caltrain staff closely coordinates with the TJPA regarding the design and planning elements for the DTX project.

SIGNIFICANCE OF THE RAB STUDY FOR CALTRAIN
There are five components to the RAB study, but two of them directly affect Caltrain. The City’s study proposes to alter the current Caltrain rail alignment away from its existing at-grade alignment into a newly constructed tunnel under Pennsylvania Avenue. The new alignment would tie into the current DTX tunnel. The Pennsylvania Avenue alignment eliminates two existing at-grade Caltrain rail crossings (Mission Bay Drive and 16th Street). For the City, it prioritizes trains reaching the Salesforce Transit Center and the center of downtown San Francisco as well as supports land use goals for the City. However, this will likely require the 22nd Street Station to be relocated. It also significantly impacts the continued functionality of the 4th and King Rail Yard by moving passenger operations to the 4th and Townsend underground station and non-revenue operations (storage/maintenance) either split into various locations or consolidated into a southern location.

Caltrain and the City share many common objectives toward resolving the two at-grade crossings in San Francisco (16th Street and Mission Bay Drive); increasing the capacity for reliable Caltrain and high-speed rail services; and finding solutions to support land use within the City. The RAB Study has posed some interesting concepts for consideration around the best solutions for transportation infrastructure and land use. The Study certainly raises many questions around how the rail infrastructure fits into San Francisco’s planning for approved entitlements in SoMa and Mission Bay. Most important to Caltrain, this Study poses interesting ideas, but technical concerns remain around how these improvements effect the Caltrain system.
It is critical, however, that Caltrain and its partners, fully understand the impacts of additional infrastructure investments to the overall system-wide operation of the Peninsula Corridor. The elements proposed within the RAB Study cannot be taken in isolation without studying how the railway functions “downstream”. This is a similar approach being applied to the multi-modal station planning effort at San Jose Diridon. The Caltrain Business Plan process, which includes an in-depth technical analysis of the issues and considerations related to the expansion of services within the corridor, is the appropriate planning vehicle to weigh the benefits and trade-offs to the overall system.

Going forward, the continued partnership between, Caltrain, California High Speed Rail Authority (CHSRA), TJP A, California State Transportation Authority (CalSTA), and the City and County of San Francisco is essential to establish an agreed upon plan for rail infrastructure and associated development in San Francisco. This partnership approach will avoid multiple overlapping projects and processes while providing a singular, focused venue where each party’s objectives and endeavors can be mutually understood and supported. Ultimately any decision should anticipate and accommodate San Francisco’s future transit vision (across all services) including excellent high-speed rail and Caltrain services as well as maximize joint development and public benefit capture opportunities, while ensuring the full and safe connectivity of the City.

**Next Steps**

Caltrain, in close coordination with its partners, will examine system-wide operational needs required to grow rail service on the Peninsula corridor through 2040 as part of the Caltrain Business Plan. Taking a system-wide approach is critical to ensuring that rail operations within San Francisco work to support service for the entire corridor and vice versa as well as determine the preferred scenario given capacity and funding constraints. The work is also included in the upcoming SFMTA’s Transit Corridors Study (targeting 2050) as part of ConnectSF, the multi-agency long-range transportation planning program for the City and County of San Francisco. The work will start with system-wide operational analysis to understand the future train volume capacity and alternative supply scenarios for both Caltrain and High Speed Rail service, including:

a. the needs relative to the overall passenger platform capacity;

b. storage and maintenance yard needs to serve this blended system and whether off-site location(s) is/are advantageous or needed;

c. where trains could stop and how they could connect to a larger state and mega-regional rail network; and

d. the preferred scenario given capacity and funding constraints.

In parallel to coordination with the Caltrain Business Plan process, staff will continue to collaborate with the City and the TJP A regarding the necessary next steps for pre-environmental engineering and planning for the City and County of San Francisco’s anticipated preliminary preferred alignment along Pennsylvania Avenue. Once the Caltrain Board of Directors provides policy direction through the Business Plan around the preferred long range Service Vision for the Peninsula Corridor, the infrastructure
alternatives can be refined to a single preferred option for San Francisco to be confirmed with work under the SFMTA’s Transit Corridor Study analysis and other studies. The partners will also examine the phasing of investments over time; particular trade-offs around sets of alternatives; and cost benefits of investments over time.

Prepared by: Elizabeth Scanlon, Director of Caltrain Planning 650.295.6867
CALIFORNIA 2015 2065 GROWTH

Population: 39 M - 52 M (+33%)
Employees: 16 m - 28 m (+77%)

545 MILLION TRIPS BETWEEN REGIONS
In 2040. That is 50% more than 2010
California will grow
260,000 NEW RESIDENTS EVERY YEAR

Option:
MAXIMIZE RAIL
OR
EXPAND AIRPORTS/HWYS

4,300 LANE MILES + 115 AIRPORT GATES WOULD BE NEEDED
to create equivalent capacity of high speed rail
Option:
MAXIMIZE RAIL
OR
EXPAND
I-80
I-280
US-101

CONNECTING THE BAY

Bay Area

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2065</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>7.6 M</td>
<td>10.7 M</td>
<td>+ 41%</td>
</tr>
<tr>
<td>Employees</td>
<td>4 M</td>
<td>5.8 M</td>
<td>+ 44%</td>
</tr>
</tbody>
</table>

250 million hours of traffic delay
Every year in the Bay Area

The Bay Area is expected to grow by 57,000 new residents every year

San Jose to San Francisco would take 30 minutes by High Speed Rail when in operation

Rail ridership would increase by 1200% with High Speed Rail by 2040
**Connecting San Francisco**

<table>
<thead>
<tr>
<th>SF</th>
<th>2015</th>
<th>2065</th>
<th>GROWTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>860,000</td>
<td>1,430,000</td>
<td>+ 66%</td>
</tr>
<tr>
<td>Employees</td>
<td>700,000</td>
<td>995,000</td>
<td>+ 44%</td>
</tr>
</tbody>
</table>

Muni Metro demand is 124% capacity during morning commute (2015)

San Francisco is expected to grow by 12,000 new residents every year

**Option:**

Maximize rail or increase demand on SF streets
<table>
<thead>
<tr>
<th></th>
<th>1950</th>
<th>1970</th>
<th>2015</th>
<th>2065</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>700,000</td>
<td>715,000</td>
<td>860,000</td>
<td>1,470,000</td>
</tr>
<tr>
<td>Employees</td>
<td>340,000</td>
<td>375,000</td>
<td>700,000</td>
<td>995,000</td>
</tr>
</tbody>
</table>
**CONNECTING NEIGHBORHOODS**

**FIDI, Mission Bay, SOMA, So. Bayfront**

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2065</th>
<th>GROWTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>87,000</td>
<td>257,000</td>
<td>194%</td>
</tr>
<tr>
<td>Employees</td>
<td>304,000</td>
<td>554,000</td>
<td>82%</td>
</tr>
</tbody>
</table>

- **20,000 NEW HOUSEHOLDS IN SOUTHERN BAYFRONT** are planned, from Mission Creek to Executive Park.
- **35,000 NEW JOBS + 520 ACRES OF OPEN SPACE** are also planned in the Southern Bayfront.
- **6 EAST-WEST ROADS** could be reconnected across Caltrain tracks.

**Option:**

**UNDERGROUND RAIL**

**OR**

**NEIGHBORHOOD ISOLATION**
UP TO 10 TRAINS PER HOUR PER DIRECTION

110,000 + CALTRAIN RIDERS PER DAY
2040 ridership projection

Three rail alignments under consideration:

**FUTURE WITH SURFACE RAIL:** DTX + TRENCHED STREETS
**PENNNSYLVANIA AVENUE:** DTX + EXTENDED TUNNEL
**MISSION BAY:** MODIFIED DTX + 3RD STREET TUNNEL

Further engineering work required
WHY DO WE NEED THIS STUDY?

- To coordinate state, regional and local infrastructure for generations of growth
- To connect neighborhoods while supporting Caltrain and High-Speed Rail operations
- Current plans require 16th St to be closed 20+ minutes every hour (during peak)
WHY NOW? MAJOR PLANNED NEW INFRASTRUCTURE

CALTRAIN ELECTRIFICATION
HIGH SPEED RAIL (HSR)
SALESFORCE TRANSIT CENTER
TRADE-OFFS TO CONSIDER

CONNECTIVITY

OPERATIONS, CAPACITY, AND SAFETY OF ALL MODES

ADHERENCE TO EXISTING PLANS/POLICIES

CONSTRUCTION SCHEDULES

POTENTIAL DEVELOPMENT OPPORTUNITIES

COSTS
RAB STUDY COMPONENTS

Each component:
- Is independent of others
- Will affect San Francisco for 100+ years

1. Rail Alignment to Salesforce Transit Center
2. Railyard Reconfiguration/Relocation
3. Urban Form and Land Use Considerations
4. Transit Center (SFTC) Extension/Loop
5. Boulevard I-280
1 RAIL ALIGNMENTS TO SALESFORCE TRANSIT CENTER

OPTION 1: FUTURE WITH SURFACE RAIL
DTX + TRENCHED STREETS

OPTION 2: PENNSYLVANIA AVE ALIGNMENT
DTX + EXTENDED TUNNEL

OPTION 3: MISSION BAY ALIGNMENT
MODIFIED DTX + 3RD ST. TUNNEL
What if Caltrain SEPARATED operations from staging and storage/maintenance?
An extension or loop is not needed now but will be when more trains travel the corridor.
Removing I-280 does not create new opportunities for rail

No physical relationship to other components

Removing I-280 requires much longer conversation with Caltrans
COSTS
RAIL ALIGNMENTS TO SALESFORCE TRANSIT CENTER

OPTION 1: FUTURE WITH SURFACE RAIL
DTX + TRENCHED STREETS

OPTION 2: PENNSYLVANIA AVE ALIGNMENT
DTX + EXTENDED TUNNEL

OPTION 3: MISSION BAY ALIGNMENT
MODIFIED DTX + 3RD ST. TUNNEL

Salesforce Transit Center (SFTC)
## PRELIMINARY ESTIMATES OF PROBABLE COSTS AND SCHEDULES

<table>
<thead>
<tr>
<th>ALIGNMENT</th>
<th>COST (^1)</th>
<th>EXPECTED COMPLETION DATE (^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FUTURE WITH SURFACE RAIL:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTX + TRENCHED STREETS</td>
<td>$5.1 Billion</td>
<td>2026</td>
</tr>
<tr>
<td><strong>PENNSYLVANIA AVENUE:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTX + EXTENDED TUNNEL</td>
<td>$6.0 Billion</td>
<td>2027</td>
</tr>
<tr>
<td><strong>MISSION BAY:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MODIFIED DTX + 3(^{RD}) STREET TUNNEL</td>
<td>$9.3 Billion</td>
<td>2031</td>
</tr>
</tbody>
</table>

1. Includes construction costs, value capture, and impact costs
2. Completion date estimate if all money were available on January 1, 2017

Conceptual Level Comparative Cost Estimates
## SUMMARY OF RAIL ALIGNMENT OPTIONS

<table>
<thead>
<tr>
<th></th>
<th><strong>FUTURE W/ SURFACE RAIL</strong> DTX + TRENCHED STREETS</th>
<th><strong>PENNSYLVANIA AVENUE</strong> DTX + EXTENDED TUNNEL</th>
<th><strong>MISSION BAY</strong> MODIFIED DTX + 3RD ST TUNNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction Cost</strong></td>
<td>$5.1 billion</td>
<td>$6.0 billion</td>
<td>$9.3 billion</td>
</tr>
<tr>
<td><strong>Expected Completion Date</strong></td>
<td>2026</td>
<td>DTX segment in 2026, extension in 2027</td>
<td>2031</td>
</tr>
<tr>
<td><strong>Neighborhood Connectivity</strong></td>
<td>Puts 16th Street into 0.6 mile trench</td>
<td>Reconnects over 1-mile of the city</td>
<td>Reconnects over 1-mile of the city</td>
</tr>
<tr>
<td><strong>Vision Zero / Pedestrian Safety</strong></td>
<td>Reduces pedestrian connections, increases walking distances</td>
<td>Improves safety and increases connections to Southeast Waterfront</td>
<td>Improves safety and increases connections to Southeast Waterfront</td>
</tr>
<tr>
<td><strong>Surface Blocks Impacted By Construction along alignment</strong></td>
<td>53+</td>
<td>12+</td>
<td>0+</td>
</tr>
<tr>
<td><strong>Land use and affordable housing opportunities at 4th/King</strong></td>
<td>Railyard remains as currently used</td>
<td>Creates land use opportunities</td>
<td>Creates land use opportunities</td>
</tr>
<tr>
<td><strong>22nd Street Caltrain station</strong></td>
<td>Remains in place</td>
<td>Creates opportunities to relocate, redesign or improve access</td>
<td>Creates opportunities to relocate, redesign or improve access</td>
</tr>
<tr>
<td><strong>Resilience to Sea Level Rise</strong></td>
<td>Trenches creates vulnerability to sea level rise</td>
<td>Tunnels can be designed for resiliency</td>
<td></td>
</tr>
<tr>
<td><strong>Access to SFTC</strong></td>
<td>Not all trains</td>
<td>All trains</td>
<td>All trains</td>
</tr>
</tbody>
</table>
RAB ALIGNMENTS – POTENTIAL SCHEDULES

<table>
<thead>
<tr>
<th>Known Partner Projects</th>
<th>SFTC opens for bus ops</th>
<th>Caltrain electrification</th>
<th>Possible early ops of CHSRA to SF to SF</th>
<th>CHSRA from LA to SF</th>
</tr>
</thead>
</table>

**Note:** Presumes all money is available January 1, 2017

* Coordinating the DTX project approach with boring of Pennsylvania Avenue Extension could save time.
NEXT STEPS
RAB TIMELINE

2014 - 2016

- Preliminary Analysis & Community Engagement

2017

- JAN - MAR: Technical Analysis and Conceptual Level Design
- MAR - JUN: Citizen Working Group & Technical Advisory Committee meetings
- JUL - SEP: Outreach to Boards, Commissions & CAC’s
- OCT - DEC: Public Meeting

2018

- JAN - MAR: SFCTA Board Update

2019

- JAN - MAR: SF Policy Makers Make Recommendations on Alignment Options
- MAR - JUN: Ongoing coordination w/ partner agencies

Dates subject to change
ONGOING COORDINATION TO CARRY RAIL PROJECTS FORWARD

2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  | 2025  | 2026  | 2027  | 2028  | 2029  | 2030

**CALTRAIN**
- Business Plan

**CHSRA**
- Peninsula Corridor Service Vision
- CHSRA SJ-SF Segment DEIS / DEIR
- FEIS/FEIR

**TTPA**
- DTX Add'l Engineering / Property Acquisition
- Penn Avenue Extension Engineering / Environmental

**City & County of San Francisco**
- Study / Design for Relocation of 22nd Station
- Connect SF: Transit Corridor Study
- Connect SF: Streets & Freeways Study

**Regional Agencies**
- BART Study of Second Bay Crossing
- Land Use Planning for 4th/King Area District
- Other Regional Studies as Appropriate

**Pennsylvania Avenue:**
- DTX + Extended Tunnel

**Connected State - Region - City - Neighborhoods**
THANK YOU

sf-planning.org/rab

Study Manager
Susan Gygi, PE